## 1

#### WTO consensus on fishing subsidies likely now but requires negotiations- consensus is key to solving overfishing- the brink is now.

Koop 21 [Fermin; Argentine journalist specializing in the environment with experience across diverse publications; “WTO Inches Towards a Deal to End Harmful Fishing Subsidies,” Maritime-Executive; 7/30/21; <https://www.maritime-executive.com/editorials/wto-inches-towards-a-deal-to-end-harmful-fishing-subsidies>] Justin

After more than 20 years of negotiations, the World Trade Organization (WTO) has moved a step closer to an agreement on ending harmful fishing subsidies. The deal would set new rules for the global fishing industry and limit government funding that contributes to unsustainable fishing and the depletion of global fish stocks. In a meeting with government ministers and heads of national delegations, WTO members vowed to finish the negotiations before the WTO’s Twelfth Ministerial Conference (MC12) in late November, and to empower their delegations in Geneva to do so. Members also said the negotiating text currently on the table can be used as the basis to strike a final agreement. “It’s been a successful day,” WTO chief Ngozi Okonjo-Iweala told reporters at the close of the meeting. “In 20 years of negotiations, this is the closest we have ever come towards reaching an outcome – a high-quality outcome that would contribute to building a sustainable blue economy. I feel new hope.” The talks’ chair, Santiago Wills, was also upbeat: “I believe that the answers today have given us the ingredients to reach a successful conclusion. Members now want to move to text-based negotiations. Twenty years has been long enough. If we continue [negotiating] for another 20 years, there won’t be any fish left.” Negotiators at the WTO had been tasked with eliminating subsidies for illegal, unreported and unregulated (IUU) fishing and prohibiting certain subsidies that contribute to overcapacity and overfishing. Talks have been going on since 2001 but differences between governments have hindered progress. 2020 had been set as a deadline to strike an agreement, but talks were delayed due to Covid-19 restrictions and the US presidential elections. A deadline was then set for this July, which was again missed. Now, Okonjo-Iweala, appointed as head of the WTO in March, aims to reach an agreement by year-end in what will be a key test for the organization’s credibility, with members deadlocked on other fronts. “In international negotiations of this type only two things are relevant. The nitty-gritty to make sure everybody is on the same page, and the spirit that prevails. If Ngozi and Wills reflected correctly what happened in the meeting, we can say there’s cautious optimism over an agreement,” Remi Parmentier, director of environmental consultancy The Varda Group, told China Dialogue Ocean. A potential agreement At the meeting, ministers discussed an eight-page draft agreement, which lists a range of subsidy bans and some conditions for exemptions for poorer countries, all of which are yet to be finalised. While some delegations like the EU were positive, several ministers expressed reservations over the content of the text. “Clearly, it will lead to capacity constraints for developing countries, while advanced nations will continue to grant subsidies,” Indian trade minister Piyush Goyal said at the meeting, regarding one part of the text. Pakistan described the draft as “regressive and unbalanced,” while the African coalition said “significant gaps” remain. Countries’ differences were acknowledged by Ngozi and Wills at the meeting. Nevertheless, they remain optimistic and said the issues would be resolved once countries move into text-based negotiations. The agreement on fishing subsidies will require a consensus among all member states, according to WTO rules. The draft deal essentially proposes three categories of prohibited subsidies; those that support IUU fishing, affect overfished stocks, or lead to overcapacity and overfishing. While this may sound simple, the political, economic and cultural complexities represent real challenges. One of the main issues has been the demand for developing countries and the poorest nations to receive so-called special and differential treatment. While this is widely accepted for the poorest countries, demands from self-identified developing countries to be exempt from subsidy constraints has proven to be difficult to accept. Many of the major fishing nations are considered developing countries by the WTO, including China, which has one of the world’s biggest fishing fleets. China’s minister of commerce, Wang Wentao, expressed China’s “support for the conclusion of [fishing subsidies] negotiations before the end of MC12.” Speaking at the meeting on 15 July, Wang stressed that concluding the negotiations would represent a major contribution from the WTO to the United Nations’ 2030 Sustainable Development Goals. “As a developing country and a major fishing power, China will take on obligations commensurate with our level of development," he said. At the meeting, Wang also introduced China’s emphasis on green development in future policies on fishing subsidies and its “zero-tolerance” policy towards IUU. Isabel Jarrett, manager of The Pew Charitable Trusts’ project to end harmful fisheries subsidies, told China Dialogue Ocean that an agreement “with too many loopholes” would undermine the WTO’s sustainability goals. The final text has to ensure that governments aren’t allowed to subsidize “irresponsible practices that can hurt fish populations,” she added. The scale of the problem Subsidies paid to the global fishing industry amount to around $35 billion per year (228 billion yuan). Of this, $20 billion is given in forms that enhance the capacity of large fishing fleets, such as fuel subsidies and tax exemption programmes, according to the European Parliament’s Committee on Fisheries. In 2018, the world’s top 10 providers of harmful fisheries subsidies gave out $15.4 billion in total, according to a report by Oceana. The EU, as a bloc, provided $2 billion, ranking third behind China and Japan. Research by Pew has found that eliminating all harmful subsidies could help fish populations recover. Specifically, it would result in an increase of 12.5 percent in global fish biomass by 2050, which translates into nearly 35 million metric tonnes of fish – almost three times Africa’s entire fish consumption in a single year. The need for progress on an agreement has gained new urgency during the last few years, as the world’s fish populations have continued to fall below sustainable levels. Around 60 percent of assessed stocks are fully exploited and 30 percent are overexploited, according to the latest figures from the UN Food and Agriculture Organization. The termination of harmful subsidies, which is embedded in the UN Sustainable Development Goals (SDGs), would be seen as key progress on ocean sustainability ahead of this year’s UN biodiversity conference in Kunming, scheduled for October, and the COP26 climate summit in Glasgow in November. “This is the year that the agreement has to be delivered. The WTO chief has made positive pronouncements of an agreement this year. There’s light at the end of this 20-year tunnel. The alternative of being in the tunnel shadows is a depressing prospect at the time ocean life is declining,” Peter Thomson,?UN special envoy for the ocean, said in a recent webinar.

#### Negotiations on IPR require tradeoffs- empirics prove.

DC = DEVELOPING COUNTRY

NET = NET EXPORTER OF TECH (advanced countries)

TNC = Trade Negotiations Committee

Anell = Lars Anell the Chair of the TRIPS negotiations

Marcellin 16 Marcellin, Sherry (Professor, London School of Economics). The political economy of pharmaceutical patents: US sectional interests and the African Group at the WTO. Routledge, 2016. SJMS

Regarding the provisions in the section on patents, including that on exclusions from patentability, another DC negotiator maintained that the stipulations should reflect ‘a well-balanced system’ (ibid: 3). Ironically however, he proceeded to categorise the texts as ‘reasonably satisfactory’, contending that a positive attitude of his delegation towards them would depend to a large extent on progress in other areas of the negotiation (ibid). This was the second time in the negotiations that a DC delegate made such an obvious attempt to concede in TRIPS while seeking bargains in other negotiating areas, suggesting that the real access-to-medicines implications of patents were not fully appreciated by all such participants (Abbott 2002: 43–4); and that such participants may have understood that the negotiations would not have culminated in their favour. Immediately after the April TNC of 1989 a similarly affiliated participant had also affirmed that if some participants were to be required to make sacrifices in the area of IPRs, there should be a readiness to make such sacrifices for their benefit in agriculture, natural resources or other negotiating groups (MTN.GNG/NG11/13: 5).10 This first declaration could be construed as a signal of a prejudged outcome that disfavoured DCs. Towards the end of this session another DC participant, supported by several others, pointed out that some other delegations had very high ambitions in the area of TRIPS and that the time had come to review the subject matter in the context of the Uruguay Round negotiations as a whole, particularly in relation to what was being offered in the more traditional areas of the GATT (ibid: 12). At these final stages in the negotiations, DCs were actively seeking trade-offs in other areas in return for agreeing to IPRs in the manner in which the NETs had anticipated (Adede 2003: 30 and Matthews 2002: 109). Anell’s informal consultations and his proposed bilateral bargaining strategies worked in tandem to consolidate the weakening position of DCs propagated during the April TNC meeting in 1989. Anell ended this final session by sharing concerns expressed about the need for results in all areas of the UR, explicitly urging delegations to manufacture consensus through concessionary bargaining. The effects would later be seen in Dunkel’s ‘Draft Final Acts Embodying the Results of the Uruguay Round of Multilateral Trade Negotiations’.11

#### That collapses biodiversity.

Osmanski 20 [Stephanie; Freelance Journaler, Writer at GreenMatters; “How Does Overfishing Affect Biodiversity? Let's Do a Deep Dive,” GreenMatters; 12/29/20; <https://www.greenmatters.com/p/how-overfishing-affects-biodiversity>] Justin

Three out of seven people — about 260 million worldwide — rely on seafood as their primary source of protein, which means the environmental and health impacts of fishing are more relevant than ever. In fact, overfishing is becoming a huge problem; Conservation.org reports that one-third of the world’s wild-caught fisheries are depleted as a direct result of overfishing, pollution, and climate change. As fish populations decline, farmed fisheries have started supplying most of our seafood, which is often plagued with additives, growth hormones, genetically modified organisms, and even food dye. However, overfishing results in other issues, too — mainly, environmental issues. Overfishing significantly affects biodiversity, which in turn, changes the ecosystem. Keep reading to find out more on how overfishing contributes to biodiversity. What is overfishing? Overfishing refers to non-sustainable practices of fishing that result in the depletion of fish species. In layman’s terms, overfishing happens when fishermen catch fish faster than the fish can reproduce. Long ago, when fishing relied on more natural methods (instinct, word-of-mouth, and guesswork), fishing practices were more natural and therefore, sustainable. But due to modern technology, fishermen now get significant help from high-tech machinery that can detect and track schools of fish, enable fishermen to explore new areas of water they had not been able to access before, and also embark in deeper waters. According to the United Nations Food and Agricultural Organization (FAO), over 70 percent of the world’s fisheries are “fully exploited,” “over exploited,” or “significantly depleted” as a direct result of overfishing. What is biodiversity? Biodiversity refers to the variety of life on Earth, referring to our planet’s vast number of biological species and organisms. It's heavily impacted when certain species cease to exist, or become threatened at a rate that is faster than that species can reproduce. Ultimately, the number of plants, animals, and microorganism species on Earth determines biodiversity. According to Global Issues, varying genes in each of these species also contributes to more biodiversity. If ecosystems or species become threatened or cease to exist, biodiversity decreases — and ultimately, all walks of life are impacted — because of the degrading food chain and other necessary biological processes. How does overfishing affect biodiversity? Overfishing impacts biodiversity in more ways than one — per Marine Science Today, overfishing alters the food chain. If a certain species is wiped out due to overfishing, the animals that rely on that species as a food source could starve, or might resort to eating other species of fish, thus altering the ecosystem and food chain as a whole. On the other end of the spectrum, the population generally consumed by the extinct species would grow disproportionately, often making way for an influx of pests. Overfishing creates a domino effect that impacts all living organisms, therefore significantly affecting biodiversity. Why is biodiversity important? Biodiversity is necessary, because every organism plays a role in the eco-system. If one species is compromised, biodiversity becomes compromised as a whole: the food chain, ecosystems, and more. The more biodiversity there is on this planet, the more productive ecosystems are, contributing to a greater availability of biological resources. Apart from food, biodiversity impacts medicinal resources, wood products, and ornamental plants. Biodiversity also helps ecosystems recover in cases of disaster. If a weather event threatens natural disasters, healthy, biodiverse ecosystems have a better chance of bouncing back. It also ensures protection of water resources, soil formation, nutrient storage and recycling, and the necessary breakdown of pollution. Why is marine biodiversity is important to humans? Aside from assuring food security, marine biodiversity also provides social and socioeconomic benefits. Socioeconomically, many areas of the world rely on fisheries to survive. If fishermen cannot sell seafood, fisheries cannot purchase fish, and these ways of life are forced out of business. A side effect of that would be that so many populations that rely on fisheries would be out of their main source of protein. Biodiversity also brings many social benefits to human populations: the opportunities to research and educate about fisheries, natural habitats, ecosystems, and various species. It also increases tourism and recreational activities, while having a lasting cultural impact, too — if specific populations rely on a species for food, loss of that population would affect that population’s culture and food supply. Marine biodiversity is incredibly important — let's take a stand against overfishing to ensure it doesn't plague eco-systems and human populations alike. TBH, might be best to go fish-free. instead.

#### Biodiversity loss causes extinction.

Torres 19[Phil; Affiliate Scholar at the Institute for Ethics and Emerging Technologies, Founder of the X-Risks Institute, Writer Appearing in Skeptic, Free Inquiry, Bulletin of the Atomic Scientists, Salon, Truthout, Erkenntnis, Metaphilosophy; “Biodiversity Loss: An Existential Risk Comparable To Climate Change,” Bulletin of the Atomic Scientists; 4/11/16; <https://thebulletin.org/2016/04/biodiversity-loss-an-existential-risk-comparable-to-climate-change/>] Justin

Catastrophic consequences for civilization. The consequences of this rapid pruning of the evolutionary tree of life extend beyond the obvious. There could be surprising effects of biodiversity loss that scientists are unable to fully anticipate in advance. For example, prior research has shown that localized ecosystems can undergo abrupt and irreversible shifts when they reach a tipping point. According to a 2012 paper published in Nature, there are reasons for thinking that we may be approaching a tipping point of this sort in the global ecosystem, beyond which the consequences could be catastrophic for civilization.

As the authors write, a planetary-scale transition could precipitate “substantial losses of ecosystem services required to sustain the human population.” An ecosystem service is any ecological process that benefits humanity, such as food production and crop pollination. If the global ecosystem were to cross a tipping point and substantial ecosystem services were lost, the results could be “widespread social unrest, economic instability, and loss of human life.” According to Missouri Botanical Garden ecologist Adam Smith, one of the paper’s co-authors, this could occur in a matter of decades—far more quickly than most of the expected consequences of climate change, yet equally destructive.

Biodiversity loss is a “threat multiplier” that, by pushing societies to the brink of collapse, will exacerbate existing conflicts and introduce entirely new struggles between state and non-state actors. Indeed, it could even fuel the rise of terrorism. (After all, climate change has been linked to the emergence of ISIS in Syria, and multiple high-ranking US officials, such as former US Defense Secretary Chuck Hagel and CIA director John Brennan, have affirmed that climate change and terrorism are connected.)

The reality is that we are entering the sixth mass extinction in the 3.8-billion-year history of life on Earth, and the impact of this event could be felt by civilization “in as little as three human lifetimes,” as the aforementioned 2012 Nature paper notes. Furthermore, the widespread decline of biological populations could plausibly initiate a dramatic transformation of the global ecosystem on an even faster timescale: perhaps a single human lifetime.

The unavoidable conclusion is that biodiversity loss constitutes an existential threat in its own right. As such, it ought to be considered alongside climate change and nuclear weapons as one of the most significant contemporary risks to human prosperity and survival.

## 2

#### The US is leading the biopharmaceuticals race – but China is close. Catching up would be a death sentence for US lead.

Gupta 21 [Gaurav; Physician, founder of the biotechnology investment firm Ascendant BioCapital; “As Washington Ties Pharma’s Hands, China Is Leaping Ahead,” Barrons; 6/11/21; <https://www.barrons.com/articles/as-washington-ties-pharmas-hands-china-is-leaping-ahead-51623438808>] Justin

There should be no doubt that we are living at the dawn of a golden age of biomedical innovation. The American scientific engine that produced Covid-19 vaccines in record time was fueled by a convergence of advances in genomics, biomarkers, data science, and manufacturing years in the making. The first Food and Drug Administration approvals of a host of new product formats—oligonucleotide, bispecific, oncolytic virus, CAR-T, and lentivirus/AAV—all took place within the last decade. These represent an unprecedented expansion of the armamentarium that physicians have at their disposal to treat and cure disease. In the last few years, 47% of all new medicines were invented by U.S. biopharma companies, with homegrown startups driving the majority of innovation. The bulk of the remainder were developed by foreign companies specifically for the U.S. market.

An indirect benefit of these trends is that most novel therapeutics undergo clinical development and early commercial launch here in the U.S. The rest of the world understands that the American patient has earlier and broader access to groundbreaking therapies via these mechanisms. Indeed, the past decade is filled with examples of medical “firsts” for American patients: the first cure for Hepatitis C, the first gene therapy for blindness, the first immunotherapy for cancer. Future rewards will be greater still if we preserve our current system of incentivizing and protecting innovation.

The remarkable innovation capacity of our biopharmaceutical industry ought to be a source of national pride. Yet while “Made in America” is the global standard for medicines in development today, misguided policy risks ceding our scientific prowess to other countries in the future. This is particularly true in the case of China, where biotechnology has become a strategic pillar for the health of its people and economy.

From 2016 to 2020, the market capitalization of all Chinese biopharma companies increased exponentially from $1 billion to over $200 billion. China saw over $28 billion invested in its life sciences sector in 2020, double the previous year’s amount. Returns on China’s investment are already arriving. The FDA approved a drug developed in China for the first time ever in 2019. While China’s innovation capacity currently remains behind America’s, my experiences as a biopharma professional make it clear they are doing everything they can to catch up and catch up fast.

In fact, when I speak to Chinese biotechnology executives, they boast that they can run clinical trials faster than their U.S. counterparts. The danger of misguided policies that disincentivize pharmaceutical innovation in the U.S. is effectively driving that same innovation to China. If we close off the market in the U.S. at the same time that China is opening its market to innovative new products, then we will see companies choose to first launch impactful novel medicines in China, based on clinical trials conducted in China. Because the FDA rarely accepts data generated entirely outside the U.S., this relocation of research capacity will negatively affect Americans’ access to cutting-edge therapies.

#### The plan gives away sensitive biotechnology information that facilitates a China lead – no 1ar evergreening turn – it would affect both nations and that info would still be available

Rogin 21 [Josh; Columnist for the Global Opinions section of the Washington Post and a political analyst with CNN. Previously, he has covered foreign policy and national security for Bloomberg View, Newsweek, the Daily Beast, Foreign Policy magazine, Congressional Quarterly, Federal Computer Week magazine and Japan’s Asahi Shimbun newspaper. He was a 2011 finalist for the Livingston Award for Young Journalists and the 2011 recipient of the Interaction Award for Excellence in International Reporting. Rogin holds a BA in international affairs from George Washington University and studied at Sophia University in Tokyo. He lives in Washington, DC; “Opinion: The wrong way to fight vaccine nationalism,” The Washington Post; 4/8/21; <https://www.washingtonpost.com/opinions/global-opinions/the-wrong-way-to-fight-vaccine-nationalism/2021/04/08/9a65e15e-98a8-11eb-962b-78c1d8228819_story.html>] Justin

Americans will not be safe from covid-19 until the entire world is safe. That basic truth shows why vaccine nationalism is not only immoral but also counterproductive. But the simplest solutions are rarely the correct ones, and some countries are using the issue to advance their own strategic interests. The Biden administration must reject the effort by some nations to turn our shared crisis into their opportunity.

As the inequities of vaccine distribution worldwide grow, a group of more than 50 developing countries led by India and South Africa is pushing the World Trade Organization to dissolve all international intellectual property protections for pandemic-related products, which would include vaccine research patents, manufacturing designs and technological know-how. The Trump administration rejected the proposal to waive the agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) for the pandemic when it was introduced in October.

Now, hundreds of nongovernmental organizations and dozens of Democratic lawmakers are pushing the Biden administration to support the proposal. But many warn the move would result in the United States handing over a generation of advanced research — much of it funded by the U.S. taxpayer — to our country’s greatest competitors, above all China.

In Congress, there’s justified frustration with the United States’ failure to respond to China’s robust vaccine diplomacy, in which Beijing has conditioned vaccine offers to pandemic-stricken countries on their ignoring security concerns over Chinese telecom companies or abandoning diplomatic recognition of Taiwan. There’s also a lot of anger at Big Pharma among progressives for profiting from the pandemic.

“We are in a race against time, and unfortunately Big Pharma is standing in the way of speedily addressing this problem,” Rep. Jan Schakowsky (D-Ill.), who supports the effort to waive intellectual property protections, told me in an interview. “I think the real security issue is that while the United States balks in making sure that we help ourselves, that these adversaries will just jump right in.”

Schakowsky argued that alternative measures for helping poor countries manufacture vaccines are simply not moving fast enough to save lives and that the United States has a duty to respond. House Speaker Nancy Pelosi (D-Calif.) personally conveyed her support for the waiver to President Biden, Schakowsky said.

But Big Pharma is just one piece of the puzzle. Countries such as India and South Africa have been trying to weaken WTO intellectual property protections for decades. The mRNA technology that underpins the Pfizer and Moderna vaccines was funded initially by the Defense Advanced Research Projects Agency and has national security implications.

Inside the Biden administration, the National Security Council has already convened several meetings on the issue. The waiver is supported by many global health officials in the White House and at the U.S. Agency for International Development, who believe the United States’ international reputation is suffering from its perceived “America First” vaccine strategy.

On Wednesday, U.S. Trade Representative Katherine Tai spoke with WTO Director General Ngozi Okonjo-Iweala about the waiver issue. USTR is convening its own interagency meetings on the issue, which many see as a move to reassert its jurisdiction over WTO matters.

If and when this does get to Biden’s desk, he will also hear from national security officials who believe that waiving TRIPS would result in the forced transfer of national security-sensitive technology to China, a country that strives to dominate the biotechnology field as part of its Made in China 2025 strategy. Once countries such as China have this technology, they will apply their mercantilist industrial models to ensure their companies dominate these strategically important industries, potentially erasing thousands of U.S. jobs.

“We would be delivering a competitive advantage to countries that are increasingly viewed as our adversaries, at taxpayer expense, when there are other ways of doing this,” said Mark Cohen, senior fellow at the University of California at Berkeley Law School.

#### Gains are directly converted to military prowess – destroys US primacy.

Kuo 17 [Mercy A; Executive Vice President at Pamir Consulting; “The Great US-China Biotechnology and Artificial Intelligence Race,” The Diplomat; 8/23/17; <https://thediplomat.com/2017/08/the-great-us-china-biotechnology-and-artificial-intelligence-race/>] TDI // Re-Cut Justin

Trans-Pacific View author Mercy Kuo regularly engages subject-matter experts, policy practitioners, and strategic thinkers across the globe for their diverse insights into the U.S. Asia policy. This conversation with Eleonore Pauwels – Director of Biology Collectives and Senior Program Associate, Science and Technology Innovation Program at the Wilson Center in Washington D.C. – is the 104th in “The Trans-Pacific View Insight Series.”

Explain the motivation behind Chinese investment in U.S. genomics and artificial intelligence (AI).

With large public and private investments inland and in the U.S., China plans to become the next AI-Genomics powerhouse, which indicates that these technologies will soon converge in China.

China’s ambition is to lead the global market for precision medicine, **which necessitates acquiring strategic tech**nological and human capital in both genomics and AI. And the country excels at this game. A sharp blow in this U.S.-China competition happened in 2013 when BGI purchased Complete Genomics, in California, with the intent to build its own advanced genomic sequencing machines, therefore securing a technological knowhow mainly mastered by U.S. producers.

There are significant economic incentives behind China’s heavy investment in the increasing convergence of AI and genomics. This golden combination will drive precision medicine to new heights by developing a more sophisticated understanding of how our genomes function, leading to precise, even personalized, cancer therapeutics and preventive diagnostics, such as liquid biopsies. By one estimate, the liquid biopsy market is expected to be worth $40 billion in 2017.

Assess the implications of iCarbonX of Shenzhen’s decision to invest US$100 million in U.S.-company PatientsLikeMe relative to AI and genomic data collection.

iCarbonX is a pioneer in AI software that learns to recognize useful relationships between large amounts of individuals’ biological, medical, behavioral and psychological data. Such a data-ecosystem will deliver insights into how an individual’s genome is mutating over time, and therefore critical information about this individual’s susceptibilities to rare, chronic and mental illnesses. In 2017, iCarbonX invested $100 million in PatientsLikeMe, getting a hold over data from the biggest online network of patients with rare and chronic diseases. If successful, this effort could turn into genetic gold, making iCarbonX one of the wealthiest healthcare companies in China and beyond.

The risk factor is that iCarbonX is handling more than personal data, but potentially vulnerable data as the company uses a smartphone application, Meum, for customers to consult for health advice. Remember that the Chinese nascent genomics and AI industry relies on cloud computing for genomics data-storage and exchange, creating, in its wake, new vulnerabilities associated with any internet-based technology. This phenomenon has severe implications. How much consideration has been given to privacy and the evolving notion of personal data in this AI-powered health economy? And is our cyberinfrastructure ready to protect such trove of personal health data from hackers and industrial espionage? In this new race, will China and the U.S. have to constantly accelerate their rate of cyber and bio-innovation to be more resilient? Refining our models of genomics data protection will become a critical biosecurity issue.

Why is Chinese access to U.S. genomic data a national security concern?

**Genomics** and computing research **is inherently dual-use, therefore a strategic advantage in a nation’s security arsenal.**

Using AI systems to understand how the functioning of our genomes impacts our health **is of strategic importance for biodefense.** This knowledge will lead to increasing developments at the forefront of medical countermeasures, **including vaccines**, antibiotics, and targeted treatments relying on virus-engineering and microbiome research. Applying deep learning to genomics data-sets could help geneticists learn how to use genome-editing (CRISPR) to efficiently engineer living systems, but also to treat and, even “optimize,” human health, **with potential applications in military enhancements**. A $15 million partnership between a U.S. company, Gingko Bioworks, and DARPA aims to genetically design new probiotics as a protection for soldiers against a variety of stomach bugs and illnesses.

China could be using the same deep learning techniques on U.S. genomics data to better comprehend how to develop, patent and manufacture tailored cancer immunotherapies in high demand in the United States. Yet, what if Chinese efforts venture into understanding how to impact key genomics health determinants relevant to the U.S. population? **Gaining access to increasingly large U.S. genomic data-sets gives China a knowledge advantage into leading the next steps in bio-military research.**

Could biomedical data be used to develop bioweapons? Explain.

Personalized medicine advances mean that personalized bio-attacks are increasingly possible. The combination of AI with biomedical data and genome-editing technologies will help us predict genes most important to particular functions. Such insights will contribute to knowing how a particular disease occurs, how a newly-discovered virus has high transmissibility, but also why certain populations and individuals are more susceptible to it. Combining host susceptibility information with pathogenic targeted design, **malicious actors could engineer pathogens that are tailored to overcome the immune system or the microbiome of specific populations.**

#### That causes extinction.

Yulis 17 [Max; Major in PoliSci, Penn Political Review; “In Defense of Liberal Internationalism,” Penn Political Review; 4/8/17; <http://pennpoliticalreview.org/2017/04/in-defense-of-liberal-internationalism/>] // Re-Cut Justin

Over the past decade, international headlines have been bombarded with stories about the unraveling of the post-Cold War world order, the creation of revolutionary smart devices and military technologies, the rise of militant jihadist organizations, and nuclear proliferation. Indeed, times are paradoxically promising and alarming. In relation to treating the world’s ills, fortunately, there is a capable hegemon– one that has the ability to revive the world order and traditionally hallmarked human rights, peace, and democracy. The United States, with all of its shortcomings, had crafted an international agenda that significantly impacted the post-WWII landscape. Countries invested their ambitions into security communities, international institutions, and international law in an effort to mitigate the chances of a nuclear catastrophe or another World War. The horrors and atrocities of the two Great Wars had traumatized the global community, which spurred calls for peace and the creation of a universalist agenda. Today, the world’s fickle and declining hegemon still has the ability, but not the will, to uphold the world order that it had so carefully and eagerly helped construct. Now, the stakes are too high, and there must be a mighty and willing global leader to lead the effort of diffusing democratic ideals and reinforcing stability through both military and diplomatic means. To do this, the United States must abandon its insurgent wave of isolationism and protectionism, and come to grips with the newly transnational nature of problems ranging from climate change to international terrorism.

First, the increase in intra-state conflict should warrant concern as many countries, namely in Africa and the Middle East, are seeing the total collapse of civil society and government. These power vacuums are being filled with increasingly ideological and dangerous tribal and non-state actors, such as Boko Haram, ISIS, and Al-Shabaab. Other bloody civil wars in Rwanda, Sudan, and the Congo have contributed to the deaths of millions in the past two decades. As the West has seen, however, military intervention has not been all that successful in building and empowering democratic institutions in the Far East. A civil crusade, along with the strengthening of international institutions, may in fact be the answer to undoing tribal, religious, and sectarian divisions, thereby mitigating the prospects of civil conflict. During the Wilsonian era, missionaries did their part to internationalize the concept of higher education, which has contributed to the growth of universities in formerly underdeveloped countries such as China and South Korea.[1] In addition, the teachings of missionaries emphasized the universality of humanity and the oneness of man, which was antithetical to the justifications for imperialism and the rampant sectarianism that plagued much of the Middle East and Africa.[2] Seeing that an increase in the magnitude of human casualty is becoming more of a reality due to advancements in military technology and the increasing outbreaks of civil war, international cooperation and the diffusion of norms that highlight the importance of stable governance, democracy, and human rights is the only recourse to address the rise in sectarian divides and civil conflicts. So long as the trend of the West’s desire to look inward continues, it is likely that nation states mired in conflict will devolve into ethnic or tribal enclaves bent on relying on war to maintain their legitimacy and power. Aside from growing sectarianism and the increasing prevalence of failed states, an even more daunting threat come from weapons that transcend the costs of conventional warfare.

The problem of nuclear proliferation has been around for decades, and on the eve of President Trump’s inauguration, it appeared that Obama’s lofty goal of advocating for nonproliferation would no longer be a priority of American foreign policy.[3] In addition, now that the American president is threatening to undo much of the United States’ extensive network of alliances, formerly non-nuclear states may be forced to rearm themselves. Disarmament is central to liberal internationalism, as was apparent by the Washington Naval Treaty advocated by Wilson, and by the modern CTBT treaty. The reverse is, however, being seen in the modern era, with cries coming from Japan and South Korea to remobilize and begin their own nuclear weapon programs.[4] A world with more nuclear actors is a formula for chaos, especially if nuclear weapons become mass-produced. Non-state actors will increasingly eye these nuclear sites as was the case near a Belgian nuclear power plant just over a year ago.[5] If any government commits a serious misstep, access to nuclear weapons on the behalf of terrorist and insurgent groups will become a reality, especially if a civil war occurs. States with nuclear weapons require domestic stability and strong security, which is why states such as Israel, North Korea, and Pakistan could be in serious trouble in the event of a domestic uprising or military coup. The disarmament of all states is essential for human survival, and if it is not achieved, then a world full of nuclear weapons and an international system guided by realpolitik could give rise to nuclear warfare. In today’s world, nuclear weapons leave all states virtually defenseless. But, for nuclear deproliferation to become a cornerstone of the global agenda, a pacifying and democratic power must rise to the limelight to advocate the virtues of peace, stability, and human rights.

## 3

#### CP text: The member nations of the WTO should:

#### ---Loan an additional 4 billion dollars of additional funding to close the pre-purchase gap of 350 million vaccines to achieve world-wide immunity

#### ---The World Bank should relax the conditions to receive a loan as per Goldberg 21

#### ---Eliminate export restriction on critical medicines during pandemics.

#### The CP solves pandemics better – the aff misidentifies the problem.

Goldberg 20 [PINELOPI KOUJIANOU; Former World Bank Group chief economist and editor-in-chief of the American Economic Review, Professor of Economics at Yale University; “Forget the Vaccine Patent Waiver,” Project Syndicate; 5/13/21; <https://www.project-syndicate.org/commentary/wto-vaccine-waiver-is-beside-the-point-by-pinelopi-koujianou-goldberg-2021-05>] Justin

What’s the issue, then? According to Agarwal and Reed, it is that companies are reluctant to activate their existing production capacity without pre-purchase commitments. There is currently a large gap between the number of doses that could be produced and the number that have been pre-ordered. And, as one would expect, this gap is unevenly distributed. High-income countries have ordered more doses than they need and thus will end up with a surplus, whereas lower-income countries are far behind in pre-purchasing vaccines.

Under these circumstances, efforts to increase capacity by relaxing patent protections would do nothing to accelerate vaccinations in lower-income countries. A far more promising strategy is to help lower-income countries purchase vaccines, while channeling surplus doses from richer countries to wherever they are needed most.

To a large extent, this strategy is already being implemented, thanks to the efforts of the COVAX Advanced Market Commitment facility, together with concessional loans by multilateral institutions such as the World Bank, and regional initiatives such as the one being led by the African Union. Remarkably, Agarwal and Reed show that the COVAX AMC facility and the AU initiative already have ensured that most African countries have ordered enough vaccines to cover at least 50% of their populations.

Still, three critical challenges remain. First, closing the pre-purchase gap of 350 million vaccines will requires an additional $4 billion – a trivial cost relative to the potential benefit of achieving worldwide immunity. Providing this support, either through additional funding for the COVAX AMC facility or by sending surplus vaccines to developing countries as soon as possible, should not be too difficult or costly for high-income countries to manage.

Second, the World Bank needs to relax its conditions for extending loans for vaccine pre-purchases. Currently, such loans can be used only for vaccines approved by three stringent regulatory authorities (SRAs) in three different regions. Among these are Japan and certain Western countries, which naturally prioritize approval of vaccines intended for their own populations. They have little incentive to grant emergency-use authorization to alternative vaccines that have shown high efficacy in Phase 3 clinical trials, such as Bharat Biotech’s Covaxin (India), and Gamaleya’s Sputnik V (Russia), and Sinovac Biotech’s CoronaVac (China). Extending the list of national regulators classified as SRAs would go a long way toward increasing lending for vaccine purchases.1

Finally, existing vaccine manufacturers will be unable to meet their production targets if vaccine nationalism gives rise to export restrictions on critical inputs and raw materials. We saw such behavior early in the pandemic with respect to personal protective equipment, but the resulting export restrictions proved short-lived. One hopes the same will be true for vaccines. International cooperation and coordination will be crucial in the coming months.

There are many ways for advanced economies to assist poorer countries in vaccinating their populations as soon as possible. But relaxing patent protections – however appealing the idea may be in other contexts – is not one of them. The focus should be on providing additional funding and less restrictive lending for pre-ordering vaccines, and on funneling surpluses from high-income countries to the rest of the world.

#### Solves case – their Vanni ev identifies pre-purchase commitments as the issue, but the counterplan restructures incentives and allows for other countries to close the gap

## 4

#### Text: A nation appointed international panel of scientists including National Academies and corresponding organizations should eliminate patent protections for medicines and manage similar conflicts of interest between intellectual property.

#### International panel of science diplomats can rule over IP---that’s key to science diplomacy.

Hajjar and Greenbaum 18 [David; Dean Emeritus and University Distinguished Professor, and Professor of Biochemistry and Pathology at Weill Cornell Medicine, Cornell University. He is a Fellow of the American Academy of Arts and Sciences, Fellow of the American Association for the Advancement of Sciences, a Jefferson Science Fellow of the National Academies at the U.S. Department of State, and a recent Senior Fellow in Science Policy at the Brookings Institute; Steven; Professor and Chair of the Department of Physics and Astronomy at Hunter College of the City University of New York and a Fellow of the American Physical Society. He was a Jefferson Science Fellow of the National Academies at the U.S. Department of State; “Leveraging Diplomacy for Managing Scientific Challenges,” American Diplomacy; September 18; <https://americandiplomacy.web.unc.edu/2018/09/leveraging-diplomacy-for-managing-scientific-challenges-an-opportunity-to-navigate-the-future-of-science/>] Justin

At the global level, science diplomacy is defined as cooperation among countries in order to solve complex problems through scientific research and education (1). For example, science diplomacy plays an important role in resolving global issues related to the ecosystem (such as clean water, food safety, energy conservation, and preservation of the environment). It also addresses problems related to the healthcare industry. For example, scientists have served at the international level to forge the Middle Eastern Cancer Consortium a decade ago to facilitate better healthcare and improve cancer research in the region. Whether one considers science for diplomacy or diplomacy for science, international science collaborations benefit from allowing science diplomats (broadly defined as science envoys, science attaches, embassy fellows) to help establish positive international relationships between the U.S., Europe, Latin America, Africa or Asia, particularly when proprietary disputes arise (2, 3). These various types of science diplomats already exist; some, like embassy fellows and science envoys, have one-year appointments so their role may be limited, while attaches usually have two or three year appointments that may allow them to be more successful in long, protracted negotiations. In any event, we believe that scientists can play more of a role in advancing international scientific cooperation. A key point addressed here is how to balance security concerns against the need for free exchange of information needed for innovation and growth.

Both the National Science Foundation and the National Institutes of Health are already engaged in supporting American science and strengthening collaborations abroad. Such efforts take advantage of international expertise, facilities, and equipment. Here, we provide a rationale for the use of diplomacy to address scientific challenges. This approach allows some scientists working as diplomats to help manage complex and potentially conflicting situations that arise between scientific communities and their governments. Such issues include managing disputes such as licensing agreements for intellectual property (IP) and providing protection of IP.

International collaborations can not only support but also accelerate the advancement of science. However, collaborations may carry risk if IP is misappropriated for other purposes. International collaborations should have a basis in strategy and specific goals (for example, drug discovery) in order to justify the use of government and/or corporate funds.

About a decade ago, a group of academics from the University of Manchester in the United Kingdom assembled the “Manchester Manifesto,” subtitled “Who Owns Science” (6). This document addressed the lack of alignment between commercial interests, intellectual rights, and credit to the researcher. In our (and commonly held) view, the groups representing these disparate values could benefit from diplomatic mediation. More recently, it has become increasing apparent that managing China as a science and technology superpower represents another challenge for the U.S. Resolution of issues such as ownership of IP, rights to reagents, or use of skilled laboratory personnel from international collaborations may require the efforts of science diplomats. There are few international offices or “guardians” to protect junior and senior scientists in corporate or academic sectors from misuse of reagents or piracy.

China’s failure to respect IP rights, and the resulting piracy, has drawn much attention. The media have also focused on the failure of watchdog government agencies to detect and manage these unwanted activities. Industrial espionage compromises U.S. interests. Moreover, Chinese and Russian hackers have cyberattacked U.S. technology companies, financial institutions, media groups, and defense contractors. In 2018, industrial spying was even reported in a major medical school in New York City where scientists were alleged to have illegally shared research findings with Chinese companies.

The U.S. has a long history of hiring research personnel from other countries to staff its laboratories and industrial R&D centers. These scientists and engineers have made critical contributions to our nation’s well-being and security. These young Chinese and South Asian graduates of U.S. programs a generation ago now staff our research enterprise. However, recent trends in U.S. graduate school applications in science, technology, engineering and mathematics (STEM) reflect a downturn in foreign applicants, particularly from China. It is becoming increasingly apparent that the number of American-born students seeking STEM degrees is not sufficient to satisfy future demands of our high-tech workforce. While our own educational reforms must be augmented, we cannot ignore the need to continue to recruit overseas talent.

We believe that foreign scientists can continue to make critical discoveries in the U. S. provided that their talent is nurtured, developed, and harnessed for the common good. At the same time, American companies cannot hire foreign scientists if they take the ideas they generate in U.S. laboratories back to their home countries without proper credit or permission. If the advancement of science is to succeed, greater diplomatic cooperation is needed to solve and manage proprietary issues for the benefit of all (5, 6).

So, how does one strike the proper balance between security and growth? Science is a universal social enterprise; international conferences lead to friendships and productive collaborations between nations. Given that the U.S. and Chinese governments recognize the need for international communication and collaboration then surely there should be a mechanism for adjudicating anticipated conflicts. One approach would be for government, industrial, and academic stakeholders to form an international panel of scientists and engineers to manage any conflicts of interest between the need to protect proprietary information crucial to a company’s competitive edge, and the need for students and young faculty members to publish their findings. Smaller scale efforts along these lines have recently given rise to unique global partnerships, such as fellowship support by major pharmaceutical companies, which aim to address these conflicts to the benefit of both parties. An added feature of such arrangements is that they often provide corporate financing for research (9). Can this corporate-academic partnership model be adapted to multinational joint R&D efforts while protecting IP? This question falls squarely within the purview of international science diplomacy, whereby science diplomats can establish rules of conduct governing joint global technology development with proper IP protection.

Despite the highly publicized and legitimate piracy allegations against China, at least some data indicates that the Chinese legal system is responding positively to worldwide pressure to honor foreign IP. A 2016 study by Love, Helmers, and Eberhardt, for example, found that between 2006 and 2011, foreign companies brought over 10 percent of patent infringement cases in China, and won over 70 percent of those cases (10). Today, “win rates” average around 80 percent, and “injunction rates,” around 98 percent (10). As Chinese scientists and engineers increasingly enter the top tier of the innovation space, their growing awareness of their own need for IP protection could be a powerful motivating force for the protection of all IP. As stated earlier, science diplomats could catalyze this progress even further by direct negotiations with those parties involved in the conflicts. An obvious flaw in this optimistic outlook is that scientists in the U.S. wield more influence with their government than scientists in China wield with theirs. And to the extent that the Chinese government could be encouraging IP theft, this must be addressed first by those international companies/firms who want to do business with the Chinese. Chinese investments, as well as tech incubators and targeted acquisitions, can enable access to U.S. technologies for commercial development. Although this conveys a level of risk to the developers, it may provide valuable opportunities for U.S. companies as well. In many respects, the extensive engagement and collaboration in innovation between the U.S. and China, often characterized by open exchanges of ideas, talent, and technologies, can be mutually beneficial in enriching and accelerating innovation in both countries.

In summary, we believe that science diplomats could help address the increasingly complex issues that arise between accelerating scientific and engineering advances, and the need to protect national security and corporate IP. We also propose that this might be accomplished by asking the National Academies to **recommend** academic, corporate, and government scientific leaders to serve on an international scientific advisory board, and for the corresponding organizations in other countries to do the same. Access to the free flow of information promotes new knowledge and innovation. A return to a more restrictive intellectual environment is not only harmful to progress, but also nearly impossible to manage in the current internet age. A good place to start would be to engage the newly appointed head of the White House Office of Science and Technology Policy (the Science Advisor to the President of the United States), and working groups within established organizations. These organizations include the American Association for the Advancement of Science (AAAS) or the National Academies of Science, Engineering and Medicine, and corresponding international organizations. What incentive is there for a busy and successful scientist to serve in such capacity? It is the same altruism that motivates us to accept assignments as journal editors, manuscript reviewers, or funding agency panelists for the advancement of science toward the greater good.

#### Solves every existential threat.

Haynes 18—research associate in the Neurobiology Department at Harvard Medical School (Trevor, “Science Diplomacy: Collaboration in a rapidly changing world,” <http://sitn.hms.harvard.edu/flash/2018/science-diplomacy-collaboration-rapidly-changing-world/>, dml) // Re-Cut Justin

Today’s world is extremely interconnected. Most of us take this fact for granted, but its implications cannot be overstated. The rate at which information, resources, and people are able to move from one part of the world to another continues to accelerate at an alarming rate. Undoubtedly, this development has done society immense good. In the last century, global life expectancy has doubled, the percentage of people living in extreme poverty has dropped by about 60%, and world literacy rates have increased by a similar margin. But while these statistics paint a promising picture of human civilization, human progress rests on a fragile foundation of international cooperation; the challenges presented by an interconnected world are immense. War, natural disasters, and economic collapse now exert their effects globally, creating economic and ecological disasters and mass human migrations on an unprecedented scale. And with the US pulling out of major multilateral agreements on trade, climate change mitigation, and denuclearization, you might wonder if our ability to collaborate across borders productively is really up to the task.

Global challenges require global solutions, and global solutions require collaboration between countries both big and small, rich and poor, authoritative and democratic. There are few human enterprises capable of providing continuity across these differences, and as technological solutions are becoming available to some of our most pressing issues, two in particular will be necessary to getting the job done: science and diplomacy. While science has long been utilized as a means to reach political ends—think of British explorer James Cook’s mapping of unexplored continents or the United States’ Manhattan Project—a more formal integration of scientists into the diplomatic process is being undertaken. This effort, which has led to scientists and academics playing a direct role in foreign policy development and international relations, has given birth of a new branch of diplomacy: science diplomacy.

What is science diplomacy?

As both the term and concept of science diplomacy have only recently gained traction in scientific and diplomatic circles, it’s been given a variety of definitions. But common to them all is the focus on applying scientific expertise to an international effort. The focus of these efforts is to solve international problems collaboratively while balancing economic prosperity, environmental protection, and societal wellbeing. The challenge of reaching this balance in the face of a booming global population cannot be understated, but this new branch of diplomacy is already at work and is producing results. International agreements such as the Paris Climate Agreement and the Iran Nuclear Deal are two famous examples, and science diplomacy is also establishing international collaboration in many other important arenas. While these lesser known efforts may not dominate the headlines, they are quietly tackling the global issues of today and preparing us for those of tomorrow.

Natural disasters don’t respect national boundaries (and neither does the aftermath)

In 2013, the number of refugees displaced by natural disasters—hurricanes, droughts, earthquakes—outnumbered those displaced by war. Current projections estimate as many as 1 billion people may be displaced by natural disasters by the year 2050. That would mean 1 in 9 people on the planet displaced and looking for a home. Compare this to the estimated 12 million refugees displaced by the war in Syria, and a frightening picture begins to form. As natural disasters continue to increase in both their frequency and intensity, solutions for mitigating the risk of total catastrophe will be underpinned by science, technology, and the ability of the international community to collaborate. Many organizations are starting to tackle these problems through the use of science diplomacy. The center for Integrated Research on Disaster Risk (IRDR) is composed of ten national committees—a network of government sponsored research institutions across the world in countries ranging the political and economic scale. These working groups have committed to improving disaster-risk-reduction science and technology while providing guidance to policy makers charged with implementing disaster prevention and mitigation strategies.

IRDR is governed by a committee comprising experienced scientists and natural disaster experts. Its members come from all over the world—the US, China, Uganda, Norway, Mexico, Venezuela, and more. The diversity of this organization starts at the top and is crucial to developing comprehensive risk-reduction strategies. Data and insights from countries with varying areas of expertise are being shared and built upon, facilitating more accurate natural disaster forecasting and better strategies for mitigating their destructive power. And by including representatives from countries of varying political and economic power in its leadership, IRDR ensures that its work will consider the needs of the global community at large, rather than just nations with considerable wealth and political standing.

The results of this type of international collaboration speak for themselves. Although humanity is grappling with more natural disasters than ever before, deaths related to these incidents continue to trend downward. Operating outside of the typical political framework that dominates foreign relations, IRDR provides a model for effective collaboration across the geopolitical spectrum in the face of a major global issue.

Explore or Exploit? Managing international spaces

Over the last few decades the polar ice cap that covers much of the Arctic Ocean has been shrinking. So much so, that during the warm season vast areas of previously solid ice have become open waters, creating opportunities for new trade routes and exposing the Arctic’s enormous reserves of oil and natural gas. Depending on your values, this will sound either like an opportunity for huge economic development of the region or the inevitable exploitation of one of the last untouched natural territories on the planet. And if you live there, like the half a million indigenous people who currently do, how this territory is managed will determine where you can live, how (and if) you can make a living, and what the health of the ecosystems that have supported Arctic life for millennia will look like.

Luckily, such a scenario was predicted decades ago. In 1987, Mikhail Gorbachev, then leader of the then Soviet Union, delivered a speech outlining his aspirations for the arctic to be explored rather than exploited—to radically reduce military presence, create a collaborative multinational research effort, cooperate on matters of environmental security, and open up the Northern Sea Route for trade. This speech laid the foundation for the Arctic Council (Figure 1), which is one of the most successful examples of science diplomacy at work. Composed of the eight Arctic nations, including geopolitical rivals US and Russia, and numerous groups of indigenous peoples, the Arctic Council was established to maintain Gorbachev’s vision for the region while giving the indigenous peoples a seat at the negotiating table. The council’s activities are conducted by six scientific and technology-based working groups who conduct research in the area and provide knowledge and recommendations to the council members. As a result of this research, and allowing scientists to take part in the negotiations, the Arctic council has enacted several legally binding agreements regarding the sustainable development and environmental protection of the Arctic Ocean. These agreements have facilitated cooperation on a number of important issues including search and rescue operations, prevention and containment of maritime oil pollution, and, most recently, enhanced data sharing and scientific research collaborations. Against a backdrop of rapidly deteriorating diplomatic relations, the US and Russia have co-chaired task forces that laid the foundation for these agreements, proving to the world that meaningful results can be achieved through the avenue of science diplomacy, regardless of geopolitics.

Science diplomacy going forward

The technical expertise that characterizes science diplomacy will continue to be in demand across many realms of foreign policy. For example, synthetic biology and gene-editing technology continue to factor into matters regarding agriculture and trade. Also, digital currencies, such as bitcoin, have changed the way economists and businesses are approaching markets. Finally, machine learning and artificial intelligence are being used by governments as a means for population control, giving rise to a new type of governance—digital authoritarianism.

While this expertise will be necessary for managing such issues, building international coalitions can’t be done through a purely scientific and technical lens. Convincing others to cooperate means providing them with a convincing argument to do so, and in terms they understand and find compelling. To achieve this, scientists must be trained to communicate their expertise in a way that moves stakeholders in policy discussions to act. This means appealing to motivations they have been largely taught to put to the side—whether they be political, economic, or emotional in nature—without obscuring the data and insights they have to offer.

For our leaders, policy makers, and diplomats to effectively understand issues underpinned by science and technology, experts in these fields must continue to be integrated into the mechanisms of governance. With scientists in the US running for elections in numbers like never before, we can expect this trend to continue. And in the face of a rising wave of nationalism across the world, it is crucial that we do everything we can to foster collaboration. The future of human civilization depends on it.

#### The WTO ensures structural poverty of the Global South – multiple warrants.

Walker 11 Aurelie Walker 11-14-2011 "The WTO has failed developing nations" <https://www.theguardian.com/global-development/poverty-matters/2011/nov/14/wto-fails-developing-countries> (trade policy advisor at the Fairtrade Foundation. Aurelie has specialised in EU trade relations with Africa, the Caribbean and the Pacific. She has worked as trade negotiator for an East African government, as advisor to business and government in Southern Africa on the Economic Partnership Agreement negotiations and for European Institutions and think tanks. Aurelie now advocates on behalf on Fairtrade producers on international trade issues)//Elmer

Ten years ago, a new World Trade Organisation that put developing country needs at the centre of the international trade negotiation agenda was proposed. The Ministerial Declaration adopted at the start of the Doha Development Round of trade negotiations, on 14 November 2001, was a promising response to the anti-globalisation riots of the 1990s. But the **WTO** membership **has failed to deliver** the promised **pro-development changes**. Finding "development" in the Doha Development Round today is like looking for a needle in a haystack. **Developing countries** have been **completely sidelined** **by** the **economic** **and political interests of global powers**. Here are 10 examples of how the WTO has failed the poor: 1. **Cotton**: the Fairtrade Foundation revealed last year how the $47bn in **subsidies** **paid to rich-country producers** in the past 10 years **has created barriers for** the **15 million cotton farmers across west Africa** **trying to trade their way out of poverty**, **and** how **5 million** of the **world's poorest farming families** have been **forced out of business** and into deeper poverty because of those subsidies. 2. **Agricultural subsidies**: beyond cotton, WTO members have failed even to agree how to reduce the huge subsidies **paid to rich world farmers**, whose overproduction continues to **threaten** the **livelihoods of developing world farmers**. 3. **Trade agreements**: the WTO has also failed to clarify the deliberately ambiguous rules on concluding trade agreements that allow the poorest countries to be manipulated by the rich states. In Africa, in negotiations with the EU, countries have been forced to eliminate tariffs on up to 90% of their trade because no clear rules exist to protect them. 4. Special treatment: the rules for developing countries, called "special and differential treatment" rules, were meant to be reviewed to make them more precise, effective and operational. But the WTO has failed to work through the 88 proposals that would fill the legal vacuum. 5. Medicine: the poorest in developing countries are unable to access affordable medicine because members have failed to clarify ambiguities between the need for governments to protect public health on one hand and on the other to protect the intellectual property rights of pharmaceutical companies. 6. **Legal costs**: the WTO pledged to improve access to its **expensive** and **complex legal system**, but has failed. In 15 years of dispute settlement under the WTO, 400 cases have been initiated. No African country has acted as a complainant and only one least developed country has ever filed a claim. 7. Protectionist economic policies: one of the WTO's five core functions agreed at its inception in 1995 was to achieve more coherence in global economic policy-making. Yet the **WTO** **failed to curb** the speedy **increase in** the number of **protectionist measures** applied **by G20 countries** in response to the global economic crisis over the past two years – despite G20 leaders' repeated affirmations of their "unwavering" commitment to resist all forms of protectionist measures. 8. Natural disaster: the **WTO fails to alleviate suffering** when it has the opportunity to do so. **In** the case of **natural disaster**, the **membership** will have **taken** almost **two years to** agree and **implement** temporary **trade concessions for Pakistan,** where severe flooding displaced 20 million people in 2010 and caused $10bn of damage. Those measures, according to the International Centre for Trade and Sustainable Development, would have boosted Pakistan's exports to the EU by at least €100m this year. 9. Decision-making: the WTO makes most of its decisions by consensus – and achieving consensus between 153 countries is nearly impossible. But this shows another failure of the WTO: to break the link between market size and political weight that would give small and poor countries a voice in the trade negotiations. 10. Fair trade: 10 years after the start of the Doha Development Round, governments have failed to make trade fair. As long as small and poor countries remain without a voice, the role of campaigning organisations, such as Traidcraft and Fairtrade Foundation, which are working together to eliminate cotton subsidies, will remain critical. The WTO has failed to live up to its promises over the past decade, which reveals a wider systemic problem in the global community. True and lasting solutions to global economic problems can only come when the model of global competitiveness between countries becomes one of genuine cooperation.

## Case