# NDCA - Aff

### Contention 1– Russia

#### Russian dominance in nuclear energy---vis-à-vis state-backed corporation “Rosatom”---uses leverage and capacity to fuel Putin’s war machine

Doggett 23 [Lloyd Doggett, member of the U.S. House of Representatives, "Russia’s Rosatom Fuels Putin’s War Machine," Foreign Policy, 3-20-2023, https://foreignpolicy.com/2024/04/09/russia-rosatom-nuclear-uranium-sanctions-war-putin-ukraine/]

Western sanctions against Moscow have so far failed to effectively curb Russian President Vladimir Putin’s ability to wage his illegal war against Ukraine. Much of the weakness of the sanctions regime centers on energy. One still unsanctioned but critical target should be the network of companies associated with Rosatom, Russia’s state-owned nuclear corporation, which continues to expand its reach despite the ongoing war. U.S. operators of nuclear power plants purchase approximately $1 billion in nuclear fuel from Rosatom annually—or about 20 percent of U.S. demand for enriched uranium. That number would likely be even higher, were it not for a cap on U.S. uranium imports from Russia imposed in 2020. Many U.S. allies also rely at least partially on Russian fuel. Because of this continued dependence, Rosatom has so far been exempt from any attempts to sanction Russia. Moscow clearly believes that Rosatom will continue to get a free pass and is now using the company as a Trojan horse to circumvent Western sanctions. According to Rosatom Director-General Alexey Likhachev, the company’s military contracting has grown significantly. In January 2023, the Washington Post published information obtained by Ukrainian intelligence detailing Rosatom’s involvement in supplying the military industry with components, equipment, and raw materials, including aluminum oxide for rocket fuel, chemical compounds for aviation and rocketry, lithium-ion batteries for tanks and air defense systems, and 3D-printing technologies. Evidence strongly suggests that Rosatom is a full-fledged and growing partner of the Russian military machine. Rosatom is also expanding its reach into other sectors, which allows the Kremlin to tighten state control over companies that can help circumvent restrictions. For example, Rosatom recently acquired Fesco, one of Russia’s largest shipping companies, which accepts payments from customers in Chinese yuan in order to avoid sanctions affecting U.S. dollar and euro transactions. In November 2023, Putin signed a decree transferring state-owned shares of Fesco to Rosatom, granting the nuclear giant control over an extensive array of assets, including terminal complexes across the country—in Novosibirsk, Khabarovsk, Tomsk, and Vladivostok—as well as 37 ships, more than 170,000 shipping containers, and 11,000 platforms for container transportation. Rosatom’s expansion has become a hallmark of its activities in recent years, helping Moscow to reroute trade from sanctioned companies and goods. Renera, Rosatom’s energy storage subsidiary, has acquired the machinery to assemble high-quality lithium-ion batteries using cells and modules imported from a South Korean plant, despite a ban on the export of modules from South Korea. Under the umbrella of unsanctioned Rosatom entities, it is much easier for Russia to acquire the necessary technology to strengthen Rosatom’s dominance in the global market. The Ukrainian think tank DiXi Group has compiled open-source data on Rosatom’s new assets, including companies such as Security Code, one of Russia’s largest developers of hardware and software for certified information protection; Tomsk MPE Ilmenite, a major producer of titanium and zirconium; and Kirov-Energomash, a large Russian manufacturer of industrial equipment. As Rosatom and its subsidiaries continue to diversify into sectors beyond the nuclear industry, the company has become an unsanctioned funnel for high-tech products, not to mention for additional revenues, to strengthen Putin’s war machine. These activities are particularly intensive relating to the production of weapons, as they allow Russia to obtain, for example, microchips and other electronic components that go into missiles, aircraft, battlefield communications, and other things that it needs to keep fighting. Meanwhile, Rosatom’s core business continues to expand, with nearly 20 new agreements and memorandums of cooperation signed in 2023, primarily focusing on Asian and African countries interested in affordable nuclear technologies. All nuclear power plant construction projects initiated since the start of Russia’s full-scale invasion of Ukraine in February 2022 are progressing successfully. Last month, media reported that the Akkuyu plant in Turkey is on schedule with its first unit over 90 percent ready; the extension of the Paks plant in Hungary has entered a new stage; another batch of equipment for the Kudankulam plant in India has been manufactured and shipped; and Rosatom has signed a contract to supply nuclear fuel components for a research facility in Egypt. All these relationships serve Russian strategic interests by maintaining its political influence and building dependencies in various parts of the globe. The further Rosatom intertwines itself with developing countries, the more it increases Russia’s international support, the easier it is for Moscow to bypass restrictions, and the harder it becomes for the United States and its allies to enact tougher, more comprehensive sanctions. What’s more, Rosatom is also working to advance its interests in key members of the sanctions coalition, France and Germany. The French company Framatome Advanced Nuclear Fuels still intends to use a Rosatom subsidiary’s license to globally produce nuclear fuel assemblies at a plant in Lingen, Germany. Nor should Washington ignore Rosatom’s cooperation with China and Iran to help develop their nuclear energy programs, where the extent to which Russian technology powers these countries’ nuclear weapons programs is unclear. By keeping silent as Russia circumvents sanctions and globally sources what it needs for its military, the United States and its partners are helping Moscow even as they support Kyiv. In Washington, congressional momentum is building for a ban on Russian uranium imports, which the House passed unanimously last year. Although there is general support for such a ban, the bill has been stalled in the U.S. Senate over an unrelated matter. While the Biden administration has imposed some sanctions on the Russian nuclear industry, the list of sanctioned entities includes only about 20 of the nearly 460 companies that make up the Rosatom conglomerate. Restraining Russia’s capabilities requires much more comprehensive action, such as automatic sanctions against all Rosatom assets acquired after Feb. 24, 2022; sanctions against Rosatom-linked research organizations in order to restrict Russia’s access to modern technologies; and working with the EU and G-7 to ensure that sanctions have the highest possible impact. Without further intervention, Rosatom’s dominance in the global market for nuclear power plants—where the company already supplies more than 70 percent of worldwide exports—will continue to provide Russia with an edge in funding its war and advancing its interests. U.S. President Joe Biden and Congress can also do much more to eliminate U.S. dependence on Russia for nuclear fuel. In 2022, the Inflation Reduction Act included $500 million for the Energy Department to advance uranium production in the United States to fuel a new generation of nuclear reactors. Last month, another $2.7 billion was allocated to fund U.S.-based uranium processing and enrichment. Sanctions are effective only if the United States, along with the G-7+ coalition, demonstrates unity, strength, and resilience. Closer trans-Atlantic cooperation can create opportunities to reduce dependence on Russia and increase pressure on Moscow. If Russia’s nuclear industry remains sanctions-free, it will not only undermine clear U.S. foreign-policy goals but also risk failure in U.S. efforts to support Ukraine’s essential fight for freedom.

#### Rosatom’s reach is global and dangerous – they empirically disregard safety and weaponize facilities

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Russia’s nuclear industry has been expanding globally with little scrutiny since its full-scale invasion of Ukraine. While Western nations have focused on hobbling Russia’s oil and gas revenues, Rosatom, its state-owned nuclear energy company, has been left to work unhindered. Western allies, after deepening their reliance on Rosatom over recent decades, have taken great care not to disrupt the flow of Russian atomic materials and services, even though the company is accused of complicity in war crimes, poses serious safety risks worldwide, and is fueling the war in Ukraine. Rosatom describes itself as a pioneer and leader in civil nuclear technology, but its outreach is much wider and more nefarious, as shown in a report published in February by DiXi Group, a Ukrainian energy think tank. This documents the company’s increased involvement in the provision of equipment for military purposes using a high-density core made from depleted uranium. Many of its activities might have gone under the radar if Rosatom had not unleashed international outrage by joining the Russian military effort at Ukraine’s Zaporizhzhia nuclear power plant, which it has used as a weapon to threaten Europe. Since occupying the plant — Europe’s largest — Rosatom has breached security protocols by allowing unauthorized personnel to operate it and turned a blind eye to irresponsible military behavior, such as placing landmines in restricted areas. It has also aided and abetted war crimes against Ukrainians by facilitating the transformation of a part of the facility into a torture chamber. But concerns about Rosatom’s disregard for nuclear safety extend much wider than Ukraine and have a long history. In the early 2000s, the company supplied a nuclear reactor with multiple safety deficiencies to Iran, and it is currently completing Turkey’s first atomic power plant in an area of high seismic risk, prompting the European Parliament to raise the alarm over the safety of the Mediterranean region. Equipment-related risks are aggravated by the fact that many of the power plants Rosatom is developing are located in countries with questionable safety standards. It is building 28 reactors with an installed capacity of 30 gigawatts in Africa, Asia and Latin America, boasting that it has $200bn in foreign orders for the next decade. With the exception of Hungary, which has recently signed an agreement with Rosatom for the expansion of its Paks nuclear power plant, European countries have been seeking to diversify away from the company since the full-scale invasion of Ukraine. Nevertheless, breaking Rosatom’s dominance is complex. The company and its subsidiaries control about 30% of the global market for enriched uranium, which is required to power commercial nuclear reactors, and around 20% of the 450 nuclear power plants around the world are Russian-designed. In the US alone, more than a fifth of the fuel used by its 93 nuclear reactors is supplied via enrichment contracts with Russian contractors, mainly Rosatom, while the EU has 18 reactors which until recently relied on Russian fuel. The February 2022 invasion caught Western countries unprepared. Many had relied on cheap supplies from Rosatom after high domestic production costs and low demand in the wake of the Fukushima nuclear disaster, which forced them to reduce or wind down their own enrichment operations.

#### And, domestic nuclear production is key to reduce Russian influence

Lorenzini 3-7 [Marina, 3-7-25, “The US can reduce Russia’s nuclear energy—and geopolitical—influence”, Atlantic Council, https://www.atlanticcouncil.org/blogs/energysource/the-us-can-reduce-russias-nuclear-energy-and-geopolitical-influence/]

As the second Donald Trump administration settles in, at least one energy priority will remain consistent: bipartisan efforts to position the US nuclear energy industry for a greater share in the global marketplace. In early February, Secretary Chris Wright emphasized Trump’s priority for the United States: to “lead the commercialization of affordable and abundant nuclear energy” amid surging global energy demand. This opportunity will lead not only to economic growth and improved energy security in the United States, but also the chance to reduce Russian influence on nuclear energy markets in Europe—and the geopolitical leverage it affords. For the past two decades, Russia has wielded its nuclear energy technologies—through its state-owned conglomerate Rosatom—as a strategic export to exert geopolitical leverage. Rosatom has been a dependable, cost-effective, and technically competent partner for stakeholders around the world, enabling its dominant market position. Substantial up-front project finance and loans have contributed to Rosatom’s international success. Bangladesh, Belarus, Egypt, Hungary, and Turkey have benefitted from multibillion-dollar loans from Russia’s State Bank for Development and Foreign Economic Affairs (Vnesheconombank). State sponsorship allows Rosatom to offer favorable loan terms—such as a 3 percent interest rate—that competitors cannot match. Meanwhile, any analogous form of concessional loans for infrastructure projects has not been a part of the development strategy among Rosatom’s competitors. However, some countries that previously embraced the vision of energy integration with Russia continue to shift investments away from Russian partners. Countries tied to Rosatom for their nuclear supplies are keen to diversify—if not extract themselves entirely—from energy dependence on Russia. Additionally, Vnesheconombank‘s SWIFT ban and US sanctions designation increases risks for loan recipients. The United States—and allies with nuclear industries such as France and South Korea—could further convert the commercial interest for non-Russian products into strategic wins by focusing on countries with Soviet-era reactors. Countries and utilities often cite project finance as the primary barrier for building, but the new political momentum in the United States could galvanize both sufficient funds and new models across the public and private sectors. Bulgaria seeks two new reactors at Soviet-era site Bulgaria’s Kozloduy nuclear power plant operates two Soviet-era VVER-1000 reactors which supply one third of the country’s electricity. But in February 2024, Bulgaria signed an intergovernmental agreement with the United States to contribute to Bulgaria’s civil nuclear program, including the design, construction, and commissioning of two Westinghouse AP-1000 reactors at Kozloduy at a cost of $14 billion. Bulgaria’s energy minister said that the two reactors will be built entirely with public funds: either the Bulgarian treasury or the state plant owner will finance up to 30 percent of the project costs, and a loan will cover the remaining costs. In early February, the Bulgarian energy minister met with officials from the US Export-Import Bank (EXIM) to advance a $8.6 billion (more than 60 percent of the estimated cost) letter of interest for the two new reactors. For the remaining amount, the Bulgarian treasury or Kozloduy’s owner has several options. Bulgaria may also have access to debt or equity financing from the world’s largest multilateral development lender, the European Investment Bank. Additionally, as the World Bank considers how to incorporate nuclear power into their offerings, any steps toward engagement would encourage other lenders to do the same. If further capital is required, Bulgaria—with its relatively healthy domestic economy—could issue dollar-denominated bonds to raise funds, or the Kozloduy owner could issue green bonds similar to Canada’s Bruce Power. Bulgaria’s ability—and that of any potential lenders—to overcome financing hurdles will determine the success of such agreements. But if the agreement leads to new nuclear power generation, it bodes well for similar economies to undertake new reactor builds. Soviet reactor reaches end of life in Armenia Russia dominates Armenia’s energy system, but Armenian foreign policy has shifted dramatically away from Moscow in the past year, in part due to the lack of Russian military assistance to Armenia when Azerbaijan seized Nagorno-Karabakh. The policy change will not immediately impact Armenia’s Soviet-era VVER-440 nuclear reactor at Metsamor, which has received several upgrades and lifetime extensions—the latest, with Rosatom’s support, will sustain the remaining operational reactor until 2036. However, preparations must be made in the coming years to: extend the operational lifetime (a highly unlikely outcome due to the reactor’s age); build new light-water reactors (whether from China, Russia, South Korea, or the United States); or invest in small modular reactors (SMRs). Armenia may seek to build an SMR rather than a traditional reactor due to limited financing options and low power consumption. To build a new reactor, Armenia might want to follow Romania’s blended model for financing its SMR deal with NuScale. The EXIM and US International Development Finance Corporation offered Romania tentative financial support totaling $4 billion. Public and private partners then formed a coalition of stakeholders from Japan, South Korea, the United Arab Emirates, and the United States to finance the SMR project up to $275 million. If further capital is needed, private financial institutions have also recently announced their plans to support the nuclear industry. Whether and when construction begins for the reactor in Romania will demonstrate feasibility, but so far, the financial structure has shown promise. A great nuclear power balance In partnership with allies, the United States should advance financial and commercial solutions to help countries dependent on Russian nuclear energy diversify their domestic power programs. The United States is well positioned to do so. Trump, and Biden before him, have supported nuclear energy domestically, which, in turn, can result in the export of US technologies and expertise. Strong bipartisan appropriations from multiple administrations will reinforce Trump’s vision and the domestic nuclear energy industry. In 2019, during Trump’s first administration, the Nuclear Energy Innovation and Modernization Act became law, paving the way for a streamlined advanced reactor licensing process. Under the Biden administration, the multibillion-dollar appropriations from the Infrastructure Investment and Jobs Act and the Inflation Reduction Act bolstered the US nuclear energy industry. Further, the 2023 Nuclear Fuel Security Act and the 2024 ADVANCE Act enjoyed bipartisan support on Capitol Hill. Building on these domestic advances, Trump’s embrace of financial vehicles, such as the EXIM Bank or DFC, that bridge public and private sectors, will facilitate investments in multi-billion dollar infrastructure projects outside of the United States and bolster US energy-related exports, including from its domestic nuclear energy industry. These factors bode well for the United States to substantially weaken Russia’s share of global nuclear markets and its geopolitical influence.

#### And this domestic investment would be enough to undermine Russia’s efforts

Stricker & Ruggiero 23 [Andrea Stricker [Nonproliferation and Biodefense Program Deputy Director And Research Fellow] and Anthony Ruggiero [Nonproliferation And Biodefense Program Senior Adjunct Fellow], "Ending Global Reliance On Russia’S Nuclear Energy Sector," FDD, 2-3-2023, https://www.fdd.org/analysis/2023/02/03/ending-global-reliance-on-russias-nuclear-energy-sector]

Several countries could readily provide the mined and milled uranium that Russia supplies today: Australia, Canada, Kazakhstan, Namibia, Niger, Tanzania, Uzbekistan, and eventually the United States. For converted uranium, France, Canada, and Japan could begin to serve as suppliers and ramp up production over the course of a few years to replace Russian supplies. Eventually, the United States could as well. In addition, France, Urenco, Urenco USA, and soon other services in the United States could, over the course of several years, supply the enriched uranium fuel that Rosatom provides today. To meet more immediate HALEU needs, the United States is considering down-blending, or making available in a lower purity, its large stock of atomic weapons-grade uranium for HALEU production until enrichment services can meet this demand. Washington and Europe would need to assist the International Atomic Energy Agency’s international low-enriched uranium fuel bank in Kazakhstan, which relies in great part on Russian fuel, to mitigate shortages through supply from alternative sources. The imposition of sanctions on Rosatom will necessitate new sources for this fuel bank. The United States should also resist the urge to rely on Chinese supplies, as this would mean replacing one problem with another. To encourage new suppliers to enter the marketplace, Washington and its allies will have to make clear they seek a permanent decoupling from the Russian nuclear industry. A study by Columbia University’s Center on Global Energy Policy underscored the positive effect of market guidance for the nuclear fuel sector: “mining, conversion, and enrichment suppliers in the West will be looking to national governments to provide clear policies before they invest money in new facilities and capabilities. Their worry will be that in a year or two — perhaps less — Russian uranium products will be allowed back into national markets and will undercut them, causing them to lose out on their investments.”69

#### And, Rosatom is key to Russian power projection

Siddi & Silvan 24 [Marco Siddi [University of Cagliari, Department of Political and Social Science, Via Sant’Ignazio. Finnish Institute of International Affairs, Arkadiankatu 23B, 00101 Helsinki, Finland] & Kristiina Silvan [Finnish Institute of International Affairs, Arkadiankatu 23B, 00101 Helsinki, Finland], “Nuclear energy and international relations: the external strategy of Russia’s Rosatom,” International Politics https://doi.org/10.1057/s41311-024-00618-0, Oct 9, 2024]

As a leading actor in the global nuclear sector, Russia’s state company Rosatom offers a highly relevant case study to analyse dependencies in civilian nuclear power and the evolving nature of the international nuclear sector. Rosatom is a vertically integrated corporation controlling either directly or via subsidiaries the full cycle of competences in the Russian nuclear industry, from uranium mining to the construction and operation of nuclear power plants, including processing and storage of spent fuel.2 Following its establishment in 2007, Rosatom has enjoyed a unique revival and expansion thanks to domestic political choices and economic support, a growing number of international clients and decreasing competition from the Western nuclear industry. Financial and diplomatic support from the Russian state, together with flexible and comprehensive business offers to customers, have enabled the company to acquire a large foreign portfolio (Szulecki and Overland 2023). The institutional set-up of Rosatom and the strong financial support it has received from the state thus far make it a textbook case of the realist understanding of energy politics. The Russian state retains control of the strategic nuclear sector and can potentially exploit its international ramifications to pursue foreign policy goals. Rosatom’s foreign activities receive full support by the Russian government, including during bilateral meetings between representatives of the partner country and the Russian president or senior members of government. Cooperation on the peaceful use of nuclear energy is included in the agenda of such meetings, mentioned in public speeches and sometimes codified in memoranda of understanding. When cooperation is at an advanced stage, the Russian president or senior Russian government members attend official ceremonies with their foreign counterparts and celebrate landmarks in the construction of new projects (Schepers 2019, 4–5). Moreover, Rosatom plays an important role for Russia’s international prestige and status, notably its claim to be a great power, beyond the domains of military force and fossil fuel geopolitics. Nuclear technology is one of the few high-tech sectors, where Russia is a world leader. Rosatom is investing in the development of new reactor technologies, most notably safe plants using fast neutron reactors, MOX (a blend of oxides of plutonium and uranium) and a closed fuel cycle, which would allow eliminating the production of radioactive waste from power generation. Currently, Russia is the main viable commercial supplier of high-assay, low-enriched uranium (with 5–20% concentration of the isotope U-235, instead of the 3–5% concentration that fuels the existing feet of light water reactors), which will be needed to power the new generation of advanced reactors (Lorenzini and Giovannini 2022). Besides Russia, only China has the infrastructure to produce HALEU at scale, whereas in the United States production started with a pilot project in November 2023 (US Department of Energy 2023). Hence, following a realist approach, Rosatom is an important element of Russia’s great power status and international influence. Considerations concerning financial profits seem to play a secondary role in its functioning, as highlighted by the fact that the company receives considerable state subsidies. Moreover, plans to increase electricity generation from nuclear massively—as specified in Russia’s Energy Strategy to 2035—are unlikely to be achieved without substantial government intervention (IAEA 2021; Mitrova and Yermakov 2019, 37).3 At the same time, keeping to a realist reading, the Russian nuclear sector has an important vulnerability: it needs to import . natural uranium from abroadRussia uses approximately 5,500 tons of natural uranium per year, but its domestic production has oscillated between 2870 and 3560 tons since 2004 (World Nuclear Association 2021). Moreover, domestic production is only a fifth of Rosatom’s needs if its requirements to fulfill export contracts of enriched uranium are considered (Meyer 2023, 5). While, Russia has substantial resources of natural uranium, extraction from remote locations make imports from abroad cheaper. Therefore, Rosatom has chosen to import part of its requirements from abroad, mostly from Kazakhstan, where its subsidiary Uranium One set up joint ventures with or acquired stakes from its Kazakh counterparts (Siddi and Silvan 2023). If Russia were to act fully in accordance with a realist script, it would prioritise domestic sourcing of natural uranium despite higher costs in order to avoid vulnerability to external supply shocks. Russian imports of Kazakh uranium show that Russia is in the position of leading global supplier only in two of the three identified main stages of the nuclear supply chain, namely uranium enrichment (and conversion) and the export of reactors and related services. We now turn to these two stages more in detail to assess whether and how Rosatom’s actorness reflects realist or liberal paradigms.

#### Russian expansionism ensures extinction from great power war, poverty, disease, and environmental destruction.

Harari 22 [Dr. Yuval Noah PhD from the University of Oxford, Professor in the Department of History in the Hebrew University of Jerusalem, “The End of the New Peace”, https://www.theatlantic.com/ideas/archive/2022/12/putin-russian-ukraine-war-global-peace/672385/]

If Putin’s gamble **succeeds**, the result will be the **final collapse of the global order** and of the New Peace. **Autocrats around the world** will learn that **wars of conquest** are again possible, and **democracies**, too, will be **forced to** **militarize** themselves for protection. We’ve already seen Russian aggression prompt countries such as Germany to sharply increase their defense budget overnight, and countries such as Sweden to reinstate conscription. The money that should go to teachers, nurses, and social workers will instead go to tanks, missiles, and cyberweapons. At 18, young people all over the world will do their mandatory military service. **The** **whole world will look like Russia**—a country with an oversize army and understaffed hospitals. A new era of **war**, **poverty**, and **disease** will result. **Alternatively**, if Putin is **stopped** **and punished**, the global order **won’t be broken** by what he did—it will be **strengthened**. Anyone who needed a **reminder** would rediscover that **you just cannot do these things.** Which of these two scenarios will materialize? Luckily for everyone, despite his military preparations, Putin was disastrously unprepared for one crucial thing: the courage of the Ukrainian people. The Ukrainians have pushed back the Russians in a series of stunning victories near Kyiv, Kharkiv, and Kherson. But Putin has so far refused to acknowledge his mistake, and he reacts to defeat with increased brutality. Seeing that his army cannot overcome the Ukrainian soldiers on the front line, Putin is now trying to freeze the Ukrainian civilians to death in their homes. Predicting how the war will end is impossible, as is the fate of the New Peace. History is never deterministic. After the end of the Cold War, many people thought that peace was inevitable, and that it would continue even if we neglected the global order. After Russia invaded Ukraine, some swung to the opposite view. They claimed that peace had always been just an illusion, that war was an ungovernable force of nature, and that the only choice humans had was whether they wanted to be prey or predator. Both positions are wrong. War and peace are decisions, not inevitabilities. Wars are made by people, not by a law of nature. And just as humans make wars, humans can also make peace. But to make peace is not a one-off decision. It’s a long-term effort to protect universal norms and values, and to build cooperative institutions. Rebuilding the global order doesn’t mean going back to the system that disintegrated in the 2010s. A new and better global order should give more important roles to non-Western powers that are willing to be part of it. It should also recognize the salience of national loyalties. The global order disintegrated above all because of the assault of populist forces, which argued that patriotic loyalties contradict global cooperation. Populist politicians preached that if you are a patriot, you must oppose global institutions and global cooperation. But there is no inherent contradiction between patriotism and globalism, because patriotism isn’t about hating foreigners. Patriotism is about loving your compatriots. And in the 21st century, **if you want to protect** **your compatriots** from **war**, **pandemic**, and **ecological collapse**, the best way to do that is by **cooperating** with foreigners.

### Contention 2 – Desalination

#### The US is facing water shortages right now.

Bennet 24 [C.B. Bennet, September 17, 2024, “America is in a water crisis, but help is on the way”, <https://www.asce.org/publications-and-news/civil-engineering-source/article/2024/09/17/america-is-in-a-water-crisis-but-help-is-on-the-way/> Date Accessed 3/16/2025]//GZ

**Without drastic changes,** **the reality is** that some **sections of America could run out of clean** drinking **water** at some point. **Some communities already are.** Major rivers, such as **the Colorado River**; lakes, such as **Lake Mead; and the country’s aquifers are strained more than ever**. What’s more, **bringing in water from other places** used to be a popular short-term water shortage option for towns and municipalities, but even that **is becoming unreliable because of shortages**. It will take real, applicable solutions to help solve this water crisis. The country can’t rely on just one solution to replenish its groundwater, lakes, and rivers.

#### More Specifically,

Reinemer 24 [Michael Reinemer 2024, We’re running out of clean water: Consumption, Contamination, Costs” <https://www.iwla.org/publications/outdoor-america/articles/outdoor-america-2024-issue-2/we're-running-out-of-clean-water-consumption-contamination-costs> /Date Accessed 4/7/2025 //GZ]

The glass is half empty. Once, **clean fresh water was [is] something we could take for granted.** **That’s no longer possible.** Clean water, essential to our survival and a basic human right, is increasingly scarce. About **one half of one percent of the water on Earth is clean and readily available**. **At our current rate of consumption**, **the world may run out of water by 2040**, says a 2023 report from the Bank of America Global Research**. A March 2024 report from the University of Miami predicts severe shortages in the decades ahead in the U.S**. We’re accustomed to hearing about the **dire shortages and water wars** in the arid regions of the West, but they are now appearing in Eastern regions as well. The good news: we have water conservation technologies, policies and practices that could preserve supplies of clean water for generations to come—if we apply them broadly across industries and our individual households

#### And, current efforts aren’t working.

Balbuena Et All 23 [[Natalie Balbuena](https://www.foodandwaterwatch.org/author/natalie-balbuena/) & [Mia DiFelice](https://www.foodandwaterwatch.org/author/mdifelice/), April 27, 2023, “5 reasons why desalination isn’t worth it”, <https://www.foodandwaterwatch.org/2023/04/27/5-reasons-desalination> Date Accessed 3/16/2025]//GZ

In response**, governments and companies are turning to the ocean**. Drought-stricken **areas are seeing more proposals for** ocean **desalination projects**, **which** would **make ocean water drinkable** by removing the salt. **However, ocean desalination is not a solution to the threat of water shortages**. **It’s expensive** and **environmentally destructive**. Moreover, **its downsides will** — like so many other greenwashed technologies— **impact[s] already struggling communities the hardest.**

#### Thankfully, affirming solves through nuclear desalination

IAEA 20 [IAEA, updated 2020, “Nuclear Desalination”, [https://www.iaea.org/topics/non-electric-applications/nuclear-desalination](https://www.iaea.org/topics/non-electric-applications/nuclear-desalination/) Date Accessed 3/16/2025]//GZ

For more than two decades, the support for **seawater desalination using nuclear energy** (in short, called nuclear desalination) has been repeatedly stressed at the General Conference and **supported by many Member States**. Currently, with over than 200 reactor-years of operating experience gained worldwide especially in Japan, India, and Kazakhstan, **nuclear desalination has been demonstrated and eyed as a viable option to meet the growing demand for [drinking] potable water** and provide hope to areas with acute water shortages in many arid and semi-arid zones. In support of Member States to assess nuclear desalination as an option, the IAEA has developed and released the Desalination Economic Evaluation Program DEEP and the DEsalination Thermodynamic Optimization Programme DE-TOP programs. These two programmes can be used to perform economic, thermodynamic, and optimization analyses of different power resources coupled to various desalination processes. The IAEA has also published several technical reports to highlight technical information on aspects of optimum coupling including some safety considerations, environmental impact assessment of nuclear desalination, and potential new technologies for seawater desalination using nuclear energy. In addition, the IAEA has developed and released the Nuclear Desalination Toolkit which provides access to all IAEA activities related to nuclear desalination including links to publications and software download.

#### Unsafe and unclean water kill

Water.Org 24 [Water.org, “The Water Crisis”, <https://water.org/our-impact/water-crisis/>. Date Accessed 4/9/2025 // GC]

**The power of water** Water connects every aspect of life. Access to safe water and sanitation can quickly turn problems into potential – empowering people with time for school and work, and contributing to improved health for women, children, and families around the world.  **Today, 2.2 billion people – 1 in 4 – lack access to safe water and 3.5 billion people – 2 in 5 – lack access to a safe toilet. These are the people we help empower.** 2.2 billion people lack access to safe water3.5 billion people lack access to a safe toilet **A women's crisis** Women are disproportionately affected by the water crisis, as they are often responsible for collecting water. This takes time away from work, school and caring for family. The lack of water and sanitation locks women in a cycle of poverty.  When women have access to safe water at home, they can pursue more beyond water collection and their traditional roles. They have time to work and add to their household income.  *Women and children bear the primary responsibility for water collection.* Women and girls spend 200 million hours every day collecting water Every 2 minutes a child dies from a water or sanitation-related disease **A health crisis More than 1 million people die each year from lack of access to safe water and sanitation, and every 2 minutes a child dies from a water or sanitation-related disease. Access to safe water and sanitation improves health and helps families protect themselves from illness and disease. It means reduced child and maternal mortality rates. It means improved hygiene, privacy, and safety for women and girls.** It means reduced physical injury from constant lifting and carrying heavy loads of water. Now more than ever, access to safe water is critical to the health of families around the world. More than 1 million people die each year lack of access to safe water and sanitation **A children's and education crisis** Children are often responsible for collecting water for their families. This takes time away from school and play. **Safe drinking water is critical to the development of a healthy child; without it, water-related illnesses often keep children out of school. Access to safe water and sanitation changes this, giving children the time and health for school.** Reductions in time spent collecting water have been found to increase school attendance, especially for girls. Access to safe water gives children time to play and opportunity for a bright future. *Reductions in time spent collecting water increases school attendance, especially for girls.* 29% of schools lack access to basic water and sanitation $260 billion is lost globally each year due to lack of basic water and sanitation **An economic crisis** Time spent gathering water or seeking safe sanitation accounts for billions in lost economic opportunities. $260 billion is lost globally each year due to lack of basic water and sanitation. Access to safe water and sanitation at home turns time spent into time saved, giving families more time to pursue education and work opportunities that will help them break the cycle of poverty. Universal access to basic water and sanitation would result in $18.5 billion in economic benefits each year from avoided deaths alone**A climate crisis** Water is the primary way in which we will feel many of the effects of climate change. Millions of families in poverty live in regions where water access is limited, temporary, or unstable. They are less prepared to face the effects of climate change like temperature extremes, floods, and droughts. Access to sustainable safe water and improved sanitation solutions can help create climate resiliency for the people who need it the most**. *At least 50% of the world’s population — around 4 billion people — live under highly water-stressed conditions for at least one month of the year.***

#### And unsafe water prevents children from going to school

Water Mission 24 [Water Mission, January 24, 2024, “Safe Water Makes Education Possible for Children Around the World”, <https://watermission.org/news/impact-stories/safe-water-makes-education-possible-children-around-world#:~:text=In%20many%20countries%2C%20a%20lack,would%20otherwise%20be%20in%20school>. Date Accessed 4/1/2025 // GC]

Every child has dreams for their future. Whether they want to become a skilled laborer, a doctor, or an astronaut, they all need one thing—some form of education. But for millions of children around the world, education itself is only a dream. On this [International Day of Education](https://www.un.org/en/observances/education-day), we join with others to celebrate the power of education and raise awareness for the needs of children across the globe. In many countries, a [lack of safe water prevents kids from attending school](https://watermission.org/news/back-to-school-safe-water-means-education-and-opportunity/). It is common for women and children to have the responsibility to collect water for their families. **Collecting water can require walking long distances, consuming the time children would otherwise be in school.** Additionally, the water collected is often contaminated, causing water-related illnesses. More than [**443 million days of school**](https://watermission.org/global-water-crisis/)**are missed due to a lack of access to safe water each year**. Round trip, it takes Vanesa, age 16, and other children in Mankhaka Dwangwa, Malawi, **more** **than three hours to collect water for their families each day**. But having access to safe water nearby provides health, saves time and provides the opportunity for [children to attend school](https://watermission.org/news/safe-water-opens-doors-to-education/).   **Water Builds® Education**  Water Mission is working hard to bring safe water solutions to as many as possible around the world.   Genala, a teacher at the Primary School in Suza, Malawi, has seen how safe water has significantly impacted education in her community.  “Before Water Mission came, we had understaffing at the school,” said Genala. “Teachers would come, but without water here, they would ask to be moved to other schools. We also had low enrollment for girls because they had to wake at 1 a.m. or 2 a.m. and go to find water.” Then, Water Mission installed a safe water solution in Suza which serves more than 4,000 people as well as the school, clinic, and local churches.  “With the coming of Water Mission, we have water close to home and close to the school. We have good staff at school and are producing good, effective learners. Since Water Mission came in, both boys and girls have been in class on time. They sleep enough at night, so they perform well in school. We have been so helped by Water Mission.” Benita, age 12, who lives in Chimwenje, Malawi, can already anticipate the positive impact Water Mission’s safe water project will have on her education.   “I feel good because [safe water] means I can go to school and arrive on time,” she shared. “If I pass the Standard 8 [exams], I can go to secondary school. I want to be a police officer.”  Benita is excited to attend school regularly. According to UNICEF, only **33% of children in Malawi complete primary school.** “We are happy here, but we know that other schools don’t have this,” continued teacher Genala. “Please remember our friends in other schools who still need safe water.”  *Will you give children the opportunity to attend school by helping us provide them with safe water?*

#### No education leads to generational poverty

The Matthews House 24 [The Matthews House, 2024, “Generational Poverty And Education”, <https://www.thematthewshouse.org/generational-poverty-education/> Date Accessed 4/2/2025 //GZ]

**Poverty**, or the state of being extremely poor **is a widespread issue** here in the United States. To be considered ‘living in poverty’ a household must be below a set income threshold that varies by family size. The set threshold for each family size is updated annually to reflect inflation and is consistent across the country. The Census Bureau determines poverty by family income before taxes– it does not include any government assistance such as subsidized housing, food stamps, or enrollment in programs such as Medicaid. The poverty measure also doesn’t account for cost of living variances or any other factors outside of income, often making the measure heavily skewed and inaccurate to measure who is truly impoverished. What is Generational Poverty? Generational poverty is a term to describe a family who has been considered impoverished for two or more generations**. Families stuck in the cycle of generational poverty** often **have** many commonalities that may include **illiteracy, lack of land ownership, lack of education, and lack of job stability**. How Does Poverty Affect Youth? Studies about poverty are in agreement: Poverty can have devastating impacts on our youth and their development. Multiple sources have stated children in poverty are more likely to experience hopelessness, illiteracy, behavioral/social/emotional issues, a survivalist mindset, and even poor health. **Youth in poverty are also more likely to suffer from criminality, hunger, illness and unemployment**. To top it off youth in poverty are more likely to face rough home situations which can worsen other issues. **Education** is Fundamental Education, or lack thereof, has been found to **be** both **a** leading cause of and **solution to poverty**. To begin with, **lack of early childhood education due to an inability to afford childcare or other resources can hinder a child’s cognitive development which may damage their future educational success.** **Often poverty can also lead to youth dropping out of school to help support their family by finding a job: This** may **hinder[s] their ability to later get a job stable enough to help pull them out of poverty, thus trapping them in the cycle of poverty.** **A study of generational poverty from Yale University insists education is the answer to escaping generational poverty.** The same study noted, “Schools are really the only places where students can learn about the choices and rules of the middle class or have access to people who are willing and able to help them.” Youth in poverty lack equal access to education and resources to help pull them out of poverty, or ever learn that is a viable option for their life. Ending poverty requires educated parents to help raise educated children, and the time to step up to help is now. The Matthews House mission is to empower youth and families by building trusting relationships and providing resources to disrupt the cycles of poverty and abuse. We work toward this by walking alongside families and youth as they set goals and overcome obstacles in these main areas: education, housing, employment, well-being, and life skills.