# Illini Journal of International Security

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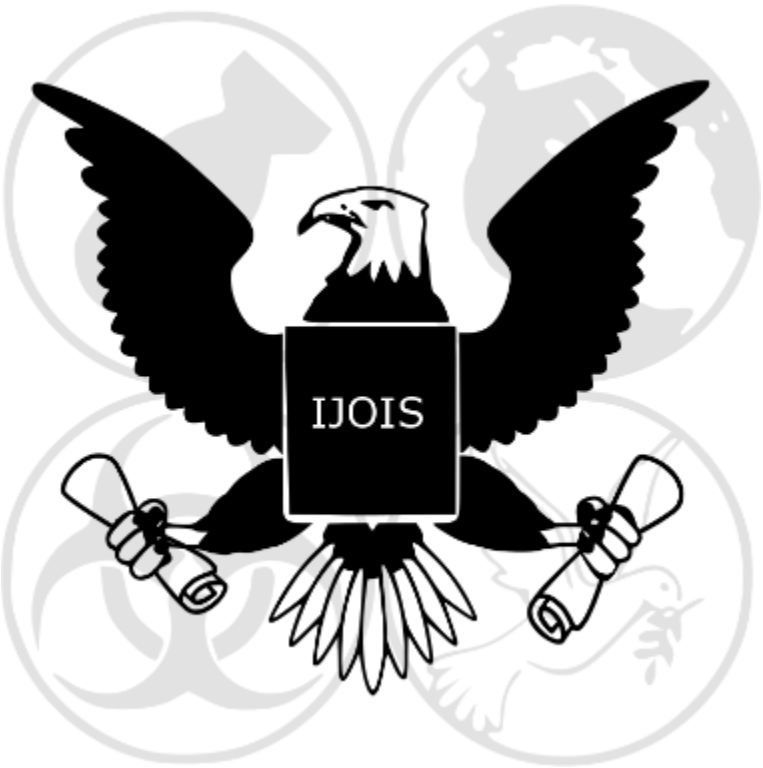

**About Illini Journal of International Security**

Illini Journal of International Security (IJOIS) is a peer-reviewed undergraduate academic journal that was founded in September 2015 by undergraduate students at the University of Illinois at Urbana-Champaign. IJOIS is published biannually through the University of Illinois Library with the support of the Program of Arms Control & Domestic and International Security (ACDIS) and consists of exceptional undergraduate and graduate papers on topics related to international security or foreign affairs. IJOIS utilizes a cross-disciplinary approach and accepts papers from students studying the social sciences, STEM fields, business and the humanities that analyze international security issues from innovative perspectives. While IJOIS is run by students at UIUC, the Journal accepts submissions from students at all University of Illinois campuses (Urbana-Champaign, Chicago, and Springfield).



**Contents:**

# US Action on Iran's Nuclear Program

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*This is an edited version of a report prepared by the author during an internship at the National Union for Democracy in Iran (NUFDI). NUFDI retains the right to publish this content as their own.*

## Introduction

Since the turn of the century, nuclear weapons proliferation has been at the forefront of the relationship between the United States and the Islamic Republic regime in Iran. The Joint Comprehensive Plan of Action (JCPOA), signed in 2015, was widely hailed as a diplomatic triumph, aimed at curbing Iran's nuclear ambitions. However, subsequent years revealed significant shortcomings, prompting the Trump administration to withdraw from the agreement and implement a comprehensive "maximum pressure" sanctions regime. This strategy sought to force the Islamic Republic into renegotiating a new nuclear deal. The Biden administration, also seeking to secure a new nuclear deal, issued various sanctions waivers to coax the regime into negotiations—an approach that has had disastrous consequences for the Iranian people, the Middle East, and U.S. national security.

This report demonstrates that regime change is the only remaining method to effectively mitigate the nuclear threat posed by the Islamic Republic of Iran, and that building on maximum pressure remains the best pathway to achieving this outcome. Through comprehensive analysis, this report will highlight the limitations of the JCPOA, assess the outcomes of the Trump administration's maximum pressure campaign, critique the Biden administration's appeasement strategy, and propose a roadmap for how future U.S. administrations can implement sanctions to achieve regime change and prevent nuclearization in Iran.

**JCPOA Summary**

The JCPOA, agreed upon on July 14, 2015, between Iran and the P5+1 (China, France, Russia, the United Kingdom, the United States, and Germany) alongside the European Union, aimed to ensure that Iran's nuclear program remained exclusively peaceful, contributing to regional and international peace and security.

**General Provisions:**

- Iran reaffirms that it will never seek nuclear weapons.
- Guarantees Iran's right to peaceful nuclear energy under the NPT, while securing phased sanctions relief.
- A Joint Commission, with an enhanced IAEA verification role, monitors implementation.

**Nuclear Commitments:**

- Enrichment: Iran limits uranium enrichment to below 300 kg, 3.67% U-235 for 15 years, with 5,060 centrifuges at Natanz monitored by the IAEA. Fordow will become a research center.
- Arak Reactor: Modified to prevent weapons-grade plutonium production. No heavy water reactors for 15 years.
- Transparency: Iran will permanently follow IAEA protocols, with 20-25 years of monitoring on key facilities.

**Sanctions Relief:**

- Lifting of UN, EU, and U.S. sanctions tied to Iran’s nuclear program contingent on IAEA verification, phased over 8-10 years.

**Implementation Milestones:**

- Finalization Day: Conclusion of negotiations and submission to the UN Security Council.
- Adoption Day: 90 days after UN endorsement, when commitments take effect.
- Implementation Day: Upon IAEA verification of compliance, triggering the lifting of specified sanctions.
- Transition Day: 8 years after Adoption Day or upon IAEA verification that nuclear activities remain peaceful, triggering further sanctions relief and ratification of the Additional Protocol.
- UN Security Council Termination Day: 10 years after Adoption Day, ending the UN resolution endorsing the JCPOA.

**Dispute Resolution:**

- A structured mechanism for resolving disputes with potential for sanctions re-imposition ("snapback") if unresolved.

**Failures of the JCPOA**

The JCPOA was intended to be a comprehensive agreement that would ensure Iran's nuclear program remained strictly peaceful while creating a path for internal reform and increased international participation by Iran. Several critical failures undermined the deal's effectiveness and exposed significant loopholes that the Islamic Republic exploited, raising serious concerns about the agreement's ability to prevent nuclear proliferation as well as its failure to address the non-nuclear threats posed by the regime.

One major issue with the JCPOA is that it does not enforce its own rules effectively. In 2016, shortly after the agreement took effect, Iran violated the limit of 130 metric tons of heavy water it was allowed to store twice, without facing any significant consequences from the International Atomic Energy Agency (IAEA). Heavy water is a key component used in certain types of nuclear reactors and can be weaponized into plutonium. In this instance, Iran should have been forced to reduce its heavy water supply by diluting it with regular water, but instead, the IAEA merely issued a warning. This weak enforcement is just one piece of evidence demonstrating that the JCPOA lacked the necessary monitoring mechanisms or authority to be effective and hold Iran accountable for violations. Without *mandatory*, strict penalties for violations – ensuring that a lack of political will won't obstruct or delay the implementation of such penalties – any nuclear deal won't be sufficient to prevent Iran from pursuing its nuclear ambitions.

Moreover, the JCPOA contains a loophole that allows Iran to work around heavy water restrictions while staying within the technical boundaries of the agreement. Iran can ship excess heavy water to another country, like Oman, and store it there with the intention of selling it later. Iran has done this multiple times, twice within the first year of JCPOA implementation (see Appendix A.1), which means that even though it technically didn't break the rules, it managed to continue producing heavy water beyond the JCPOA-imposed limits. This undermines the purpose of the agreement, allowing Iran to continue making heavy water without fully complying. That excess heavy water could quickly have been repatriated if the Islamic Republic so decided. Even worse, when the deal was on the verge of failing due to this loophole, the United States ended up purchasing the excess heavy water from Iran, funding the regime even more.

Furthermore, while the JCPOA left sanctions targeting human rights abuses, terrorism, and missile activities in place, these measures proved insufficient to curb the Islamic Republic's

malign activities. During the JCPOA years, Iran's military expenditure surged, increasing by 41% between 2014 and 2017 (see Appendix B.1). The regime's continued support for terrorism in the region, despite ongoing sanctions in other areas, also increased (see Appendix B.2). Concurrently, the purchasing power parity (PPP) of the Iranian Rial increased by 33% from 2014 to 2017 (see Appendix C.1), offering no meaningful relief from economic hardship for the Iranian people compared to pre-JCPOA years. Meanwhile, executions spiked, with annual totals rising from the 200-300 range before the nuclear deal to between 500 and 1,000 after its signing (see Appendix C.2). The JCPOA did not bring any significant improvement to the standard of living in Iran, nor did it curb the regime's human rights abuses or military ambitions.

Among the most commonly voiced criticisms of the JCPOA is the presence of sunsets for the Islamic Republic's nuclear commitments. These sunsets highlight the greatest fundamental flaw of the JCPOA: the expectation of self-moderation by the regime in Iran. A proponent of the deal may argue sanctions relief would persuade the Islamic regime to moderate and further seek inclusion in the world economy and therefore abandon its hostile actions including its nuclear program. Thus, after a reasonable amount of time (estimated by the sunsets), the nuclear commitments would become unnecessary. However, if the nuclear commitments were to become irrelevant, what harm would there be in maintaining them as insurance? Additionally, if the Islamic Republic had any intention of self-moderating, their actions during the JCPOA years should have reflected it. Yet, as demonstrated before, the regime's malignant behavior was only emboldened by the sanctions relief of the JCPOA.

These trends—rising military expenditures, support for terrorism, heightened oppression, and deteriorating economic conditions for ordinary Iranians—highlight the JCPOA's failure to address the broader security and human rights challenges posed by the Iranian regime. The agreement's loopholes, along with weak enforcement mechanisms, allowed the Islamic Republic to exploit the deal while continuing its destabilizing activities.

**Maximum Pressure**

The Trump administration's decision to withdraw from the JCPOA in May 2018 and launch the maximum pressure sanctions campaign marked a decisive shift in U.S. policy. By reinstating pre-JCPOA sanctions and introducing new ones, the administration sought to coerce Iran into renegotiating the nuclear deal and to limit its regional influence and malign activities.
The full array of sanctions can be found in Appendix D.1. They targeted:

- Iran's trade in industrial metals, the automotive sector, and foreign currency assets, including entities linked to nuclear procurement.
- Iranian oil tanker networks, companies involved in illicit oil sales, and firms in China and other countries importing Iranian oil.

- Networks supporting Iran's missile program, including companies in Iran, China, and Hong Kong.
- The Central Bank of Iran and other major banks for supporting Hezbollah and other proxy groups.
- Cybercriminals and disinformation spreaders, including Iranian media outlets.
- IRGC commanders and Iranian officials involved in domestic repression, including those responsible for the Bloody Aban protests.

**Results of Maximum Pressure**

The results of this campaign, spanning from 2018 to the end of the Trump presidency in 2021, revealed a broad landscape of impacts on the Islamic Republic's nuclear program, military expenditure, terrorism activities, and economic conditions.

One key criticism of the Trump administration's withdrawal from the JCPOA was that Iran would no longer be beholden to the limits on its uranium enrichment activities. Indeed, Iran did escalate by breaching the limit of 130 kg of 3.67% U-235 uranium by 2019 (see Appendix A.3). However, Iran failed to enrich uranium beyond 5% U-235 (see Appendix A.4), meaning its stockpile remained useful only for civilian reactors. This restriction remained for the entire duration of the maximum pressure campaign, suggesting the sanctions impacted the Islamic Republic's prioritization of further enrichment research funding, or they feared any consequences for further enrichment given their sparse resources.
Iran's military expenditure shrunk by billions of USD, specifically by 64% by the end of 2020 compared to Iran's cumulative 2017 military expenditure, even lower than pre-JCPOA levels (see Appendix B.1). In terms of regional security, the overall number of proxy terror attacks carried out by Iran-backed groups declined (see Appendix B.2). This trend suggests that the maximum pressure campaign succeeded in diminishing Iran's capacity to support and orchestrate terrorist activities across the region, contributing to a decrease in destabilizing actions by Iran's proxies.

Economically, the maximum pressure campaign was expected to exacerbate the already dire conditions for the Iranian populace. Certainly, the sanctions led to a proportional devaluation of the Iranian currency. This effect is observed in the rise in PPP for the Iranian Rial (see Appendix C.2). The sanctions may have had downstream influence on reckless Islamic Republic economic policy such as raising fuel prices, which led to the Bloody Aban protests. However, the Iranian economy was already struggling significantly during the JCPOA era, and by directly pressuring the Islamic Republic regime, the maximum pressure campaign tore the mask off the regime by forcing it to alter domestic policies such as gasoline subsidies meant specifically to keep the populace docile.

Ultimately, the Trump administration's maximum pressure campaign yielded largely impactful results. While Iran's uranium stockpile grew in violation of JCPOA limits, enrichment levels remained capped at 5%. Execution rates and military expenditures in Iran saw significant declines, indicating a constriction of the regime's internal and military capabilities. Additionally, the reduction in proxy terror attacks suggests a weakening of Iran's regional influence. Although the economic conditions for the Iranian people remained dire, the maximum pressure campaign did not substantially worsen their situation beyond pre-existing conditions. These outcomes highlight the multifaceted effects of the maximum pressure strategy and its potential to alter the Islamic Republic's behavior and capabilities.

However, despite these significant impacts, the maximum pressure campaign ultimately fell short of its most crucial goal: compelling Iran to negotiate a new, more comprehensive nuclear deal. The strategy was designed not to incapacitate the regime entirely but primarily to bring the Islamic Republic back to the negotiating table to form a new expanded deal that would cover among other things ballistic missiles. By focusing on economic sanctions to force diplomatic engagement, the campaign did not apply sufficient pressure to destabilize the regime to the point where the United States could effectively support a revolutionary movement within Iran. Without a concerted effort to undermine the regime's internal stability or to empower opposition groups, maximum pressure lacked the necessary leverage to achieve regime change. Therefore, while the campaign constrained Iran's capabilities and reduced its malign activities temporarily, it did not provide a long-term solution to the nuclear threat or address the fundamental challenge posed by the regime's continued existence.

**Post-Maximum Pressure and the Biden Administration’s Strategy**

Guided by a desire to return to a JCPOA-like nuclear deal, the Biden administration ended its predecessor’s maximum pressure sanctions regime and attempted to appease the Islamic Republic. To avoid the political blowback of entirely lifting sanctions, the administration issued numerous waivers that effectively eased the economic pressure on Tehran. For instance, in the fall of 2023, the United States freed six billion dollars of frozen funds in South Korea as part of a prisoner exchange deal. The administration has also repeatedly allowed Iraq to transfer billions of dollars of escrowed electricity payments to Iran and to make future payments to Iranian bank accounts in Oman, where Iran could convert the Iraqi dinars to euros.

Furthermore, the Biden administration's lax enforcement of existing oil sanctions significantly contributed to the regime in Iran's economic recovery and increased revenue streams. Despite sanctions officially remaining in place, the administration permitted Iran's oil exports to rise substantially, particularly to China, which became Iran's largest oil customer during this period (see Appendix C.3). This relaxation in enforcement provided the Islamic Republic with billions of dollars in oil revenue, enabling the regime to funnel more resources into its nuclear program,

military expansion, and support for regional proxy groups. The failure to strictly enforce oil sanctions undermined the economic pressure that had previously constrained Iran's destabilizing activities.

This period of appeasement led to alarming advancements in Iran's nuclear program. The Islamic Republic began enriching uranium to 60% U-235 (see Appendix A.4), the highest level they had achieved up to that point and alarmingly close to weapons-grade enrichment. In early 2023, UN inspectors detected trace amounts of uranium enriched to 83.7% U-235 at the Fordow enrichment plant.

An easily overlooked issue arising in the last four years is the IAEA's neglect of the still-existing plutonium path for obtaining nuclear weapons. Understanding this issue warrants a closer look at Iran's fuel assembly production. Fuel assemblies (rods and plates) are employed in nuclear reactors, and Iran is not supposed to reprocess the spent fuel into materials that could be weaponized, such as plutonium 239. The IAEA's general attitude toward fuel assembly production, as reflected by their reports, is relatively relaxed, presumably under the assumption that fuel assemblies are inherently meant for civilian energy use. This lenient stance gives Iran more flexibility with its uranium, heightening the risk of secretly reprocessing fuel for military purposes, especially considering on-going construction on Iran's long-planned heavy water reactor near Arak. Iran has demonstrated the capability to overstock fuel assemblies without being confronted, posing a stealthy alternate avenue for nuclear proliferation (see Appendix A.2).

These escalatory steps indicate that the Iranian regime was reallocating more funding and resources toward its enrichment processes, taking advantage of the reduced economic pressure to bolster its nuclear capabilities.

The consequences of the Biden administration's strategy extended beyond Iran's uranium enrichment program. Iran's military expenditure increased by 124% from 2020 to 2023, suggesting a renewed focus on military build-up and regional destabilization (see Appendix B.1). Additionally, executions in Iran surged dramatically, rising to the 800s by the end of 2023 (see Appendix C.1), compared to the 200-range seen during the Trump administration's maximum pressure campaign. On the economic front, the Iranian people's suffering intensified as the PPP of the Rial continued to swell (see Appendix C.2) – but at a greater rate – exacerbating already dire living conditions.

Overall, the Biden administration's appeasement strategy not only failed to curb Iran's nuclear ambitions but also worsened the situation for both the Iranian populace and regional stability. The Islamic Republic took advantage of the relaxed economic pressure to advance its nuclear program beyond previous limits, increase domestic repression, and escalate military spending.

These developments underscore the ineffectiveness and detrimental impact of the appeasement approach.

**Roadmap for Future Administrations**

Given the failures of both the JCPOA and the subsequent appeasement efforts by the Biden administration, the only remaining viable nonproliferation strategy on Iran is the end of the Islamic Republic regime.

The working strategy of maximum pressure validates how targeted sanctions can severely limit the Islamic Republic's access to critical resources necessary for nuclear development, including uranium mining, enrichment, centrifuge building, and the development of nuclear triggers and delivery vehicles. Still, Maximum Pressure was another strategy to contain the Islamic Republic, the same ultimate goal as the JCPOA. The last eight years have proven that containment – whether through maximum pressure or through appeasement – is not a viable strategy to counter either Iran's nuclear program or its malign activity.

Re-establishing maximum pressure as the norm for Iran policy is a necessary first step, but additional measures are needed to shift U.S. policy on Iran from one of containment to one that supports the Iranian people in their stated goal of achieving a free, democratic Iran.
Sanctions on raw materials and industrial metals necessary for uranium mining and processing, such as sulfur, ammonia, aluminum, and steel, must be consistently executed to tighten the belt directly around the Islamic Republic's nuclear program and prevent any future reprocessing activities. Additionally, sanctions targeting specific technology sectors, such as those preventing the acquisition of drone parts, missile components, and other delivery vehicle technologies, must be strictly enforced and scaled up. Enforcement includes maintaining vigilance over export controls and preventing illicit procurement networks. Illicit trade between Iran and China should be of particular interest for monitoring. Further comprehensive sectoral sanctions, particularly on Iran's oil industry, need to be re-imposed and rigorously enforced to cripple the regime's primary revenue sources.

As a general rule, no waivers should be granted allowing any Iran-related transactions (except where direct support to the Iranian people is involved), and the international community should be clearly notified that any violations will be met with immediate sanctioning. China, Iraq, and Turkey should be of particular (but not exclusive) interest for monitoring for violations of oil sanctions. SWIFT should be alerted that all Iranian banks must be disconnected and kept disconnected from the SWIFT network. The United States should also establish that international banks will be accountable for "Know Your Customer's Customer" rules, requiring extra scrutiny on transactions that could lead down the line to Iran.

The United States should constantly identify and designate IRGC entities and individuals involved in business with the IRGC. These same practices should be continued for Hezbollah and other terror proxies across the Middle East, as well as any entity providing them with financial or material aid. All Islamic Republic proxy groups should be or remain designated as Foreign Terrorist Organizations (FTOs) or Specially Designated Global Terrorists (SDGTs). Given the January 2025 re-designation of the Houthis in Yemen as an FTO, the Badr Organization in Iraq is currently the only remaining proxy not designated as a terrorist organization. Furthermore, the US should pressure its allies such as the European Union to join the US and Canada in designating the IRGC as a terrorist organization. Iranian airline companies, like Iran Air and Mahan Air, must be targeted for transporting material for the IRGC, and efforts to block Mahan Air flights to the Persian Gulf and to Europe should be expanded. The travel of senior Islamic Republic and IRGC officials must be thoroughly tracked to uncover further regime assets. Their family members who work or study in the United States, Canada, or Europe should also be tracked to pinpoint their sources of overseas cash.

Iran's telecommunications sector must also be targeted. Islamic Republic of Iran Broadcasting (IRIB)—already designated as a human rights abuser—should be continually sanctioned, and any bank or business providing them with material or financial aid should also be sanctioned. Moreover, any telecommunications companies that are owned, at least in part, by the IRGC, Ali Khamenei, or the Islamic Republic government should be designated as human rights abusers. Chinese technology and telecommunications companies that operate in Iran should be held accountable, particularly those providing surveillance technology to the Islamic Republic. Amidst these measures, the United States government should take care to issue licenses for distribution of surveillance-circumvention technology to Iranian dissidents.

The intensity and duration of these sanctions are crucial. The Trump administration's maximum pressure campaign established that sustained economic pressure can significantly weaken the regime's financial capacity to fund its nuclear and military activities. As pressure mounts, the Islamic Republic will certainly escalate its rhetoric and actions, but this only underscores the need to double down on sanctions and pressure. As the last few years have indicated, reducing pressure prematurely establishes the conditions for a quick recovery.

A clear and moral stance from the United States administration is essential. The Iranian people need to know that the United States does not seek war but still supports their aspirations for a free, secular, and democratic Iran. Such a government would inherently prioritize the well-being of its citizens over nuclear ambitions, viewing nuclear weapons as contrary to national interests and global integration. In concert with this public stance, the United States administration should take steps to provide "maximum support" to the Iranian people in their struggle against the Islamic Republic regime.

Grassroots regime change is the means to achieve a non-nuclear Iran. A democratic Iran would align with international norms and abandon nuclear weapons development, which the Iranian people perceive as detrimental to their national ambitions. The current regime's continued defiance and pursuit of nuclear capabilities, despite international agreements and sanctions, demonstrate that the issue has been perpetuated by the Islamic Republic itself.

President Biden deserves credit for attempting to secure a new deal; however, his failure to do so is further evidence that the current regime will never agree to a deal that achieves the United States' goal of containing Iran's nuclear program nor its malign activity in the long term. The regime's actions during this period of appeasement, including increased uranium enrichment, heightened military spending, and domestic repression, prove that only a fundamental change in governance will lead to true non-proliferation. The current Trump administration, or any future US administration, must recognize this reality instead of wasting more time trying to reach such a deal.

**Appendix A: Iran Nuclear Stockpile**

*Appendix A.1: Heavy Water Stockpile*

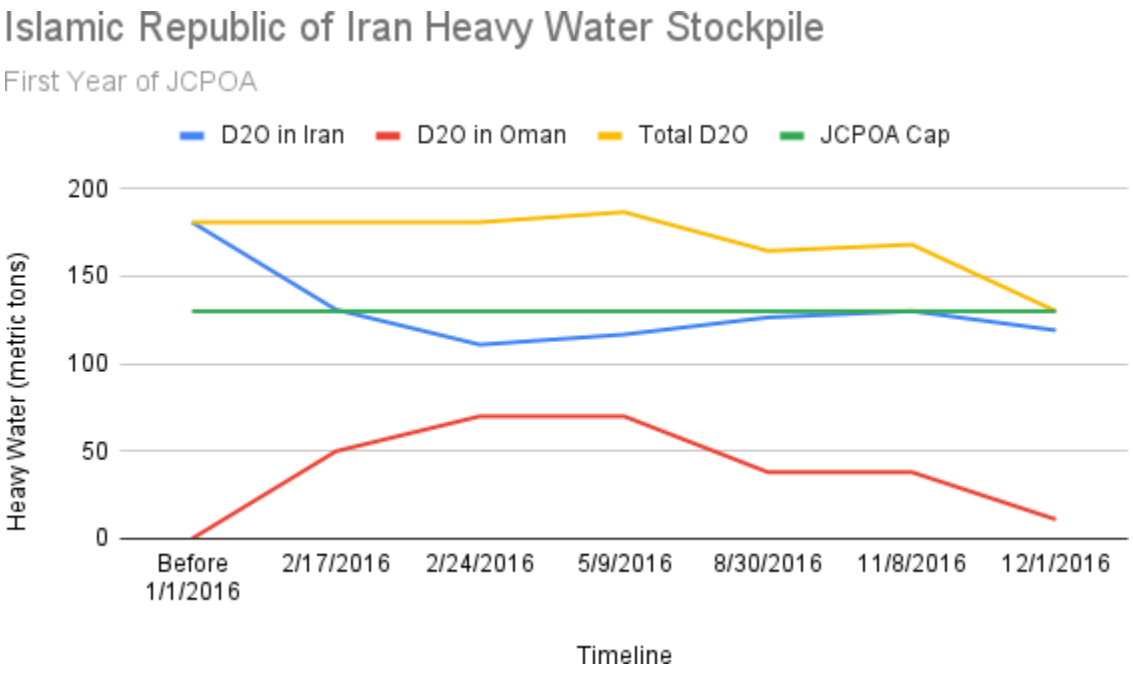


*Figure 1 (source: IAEA)*

The Islamic Republic violated the JCPOA cap of 130 metric tons of heavy water in February and November of 2016. Including the stockpile stored in Oman, the cap was violated for the entirety of 2016. Only twice did the stockpile decrease: May and December 2016. In those cases, the US and Russia purchased heavy water from the Islamic Republic.

*Appendix A.2: Uranium in Fuel Assemblies*

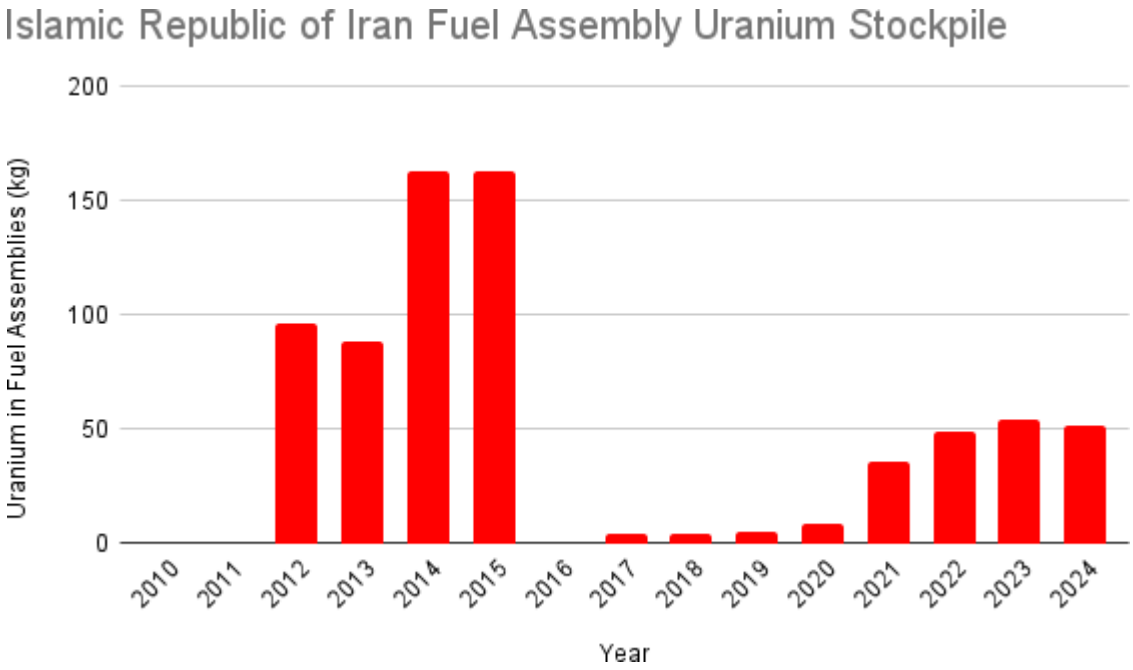


*Figure 2 (source: IAEA)*

Figure 2 demonstrates the Islamic Republic's disproportional stock of uranium in fuel assemblies throughout various US policies towards Iran. The JCPOA placed limits on Iran's uranium stockpile with the intent of sequestering the Iranian nuclear program to civilian use. If all the fuel assembly stock were intended for civilian use, the stock would be expected to be constant. Instead, the large stock before JCPOA and the growing stock after maximum pressure suggest uranium in plates and rods are not necessarily meant for civilian reactors but as an intermediate step for other use. It is important to note that Iran's one and only operational nuclear reactor, located at Bushehr, accounts for only 1% of the nation's electricity generation, and the fuel for that reactor is supplied by Russia, separate from Iran's domestic uranium enrichment program. Also of note, by May 2024, Iran had accumulated 24.5kg of fuel assemblies composed of 20% enriched uranium. Fuel assemblies composed of highly enriched uranium (HEU) could in fact be practice efforts for weapons production.

The rise in fuel assemblies in the last four years could be explained by new, recently announced reactor projects or even the much delayed opening of the Khondab Heavy Water Research Reactor (KHRR) near Arak. Such a correlation could be supported by the increase in construction on KHRR facilities noted in the IAEA Iran Verification and Monitoring Reports – represented visually in Figure 3 below by the number of instances of "IR-40" and "KHRR" in the reports. In fact, the fuel assembly stockpile data by year and the number of instances of "IR-40" and "KHRR" correlate with a coefficient of 0.686. According to the IAEA, as of August

2024, the Islamic Republic has admitted to the IAEA that some of its fuel assembly stock is intended for the KHRR.

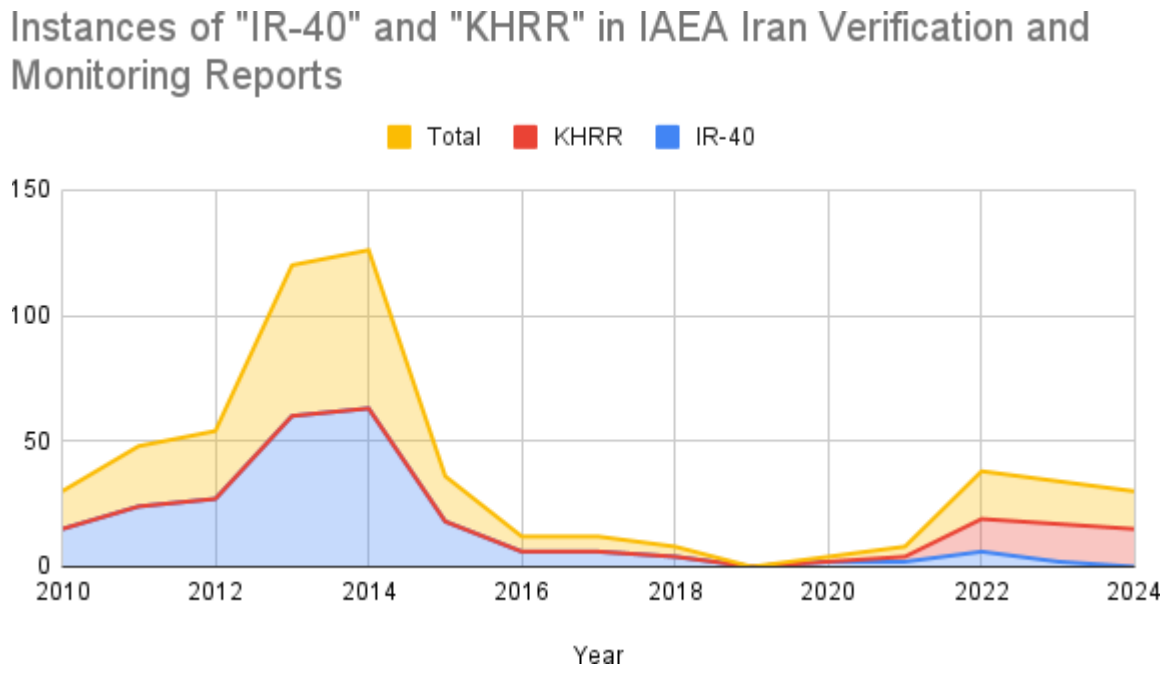


*Figure 3 (source: IAEA)*

In general, the IAEA has repeatedly claimed "that Iran had not produced or tested natural uranium pellets, fuel pins or fuel assemblies specifically designed for the support of the IR-40 Reactor as originally designed." However, it is important to note that a heavy water reactor such as the KHRR could easily be run on low enriched uranium (LEU). Natural uranium is around 99.3% U-238 and 0.7% U-235, while LEU contains up to 20% U-235 which still contains a substantial amount of U-238. The lower proportion of U-238 in the LEU fuel decreases the Pu-239 produced by the reactor but certainly does not stop it. Indeed, using LEU fuel of 5% U-235, would only cut the yearly production of Pu-239 in KHRR by around a factor of three to four, meaning KHRR could still produce enough Pu-239 for a single nuclear weapon in less than two years, notwithstanding any utilization of LEU fuel below 5% U-235 or trace amounts of Pu-239 from any other reactors for that matter. The IAEA appears to have neglected these considerations during recent commotion over the Islamic Republic's ever increasing stockpile of HEU.

*Appendix A.3: Uranium for Civilian Use*

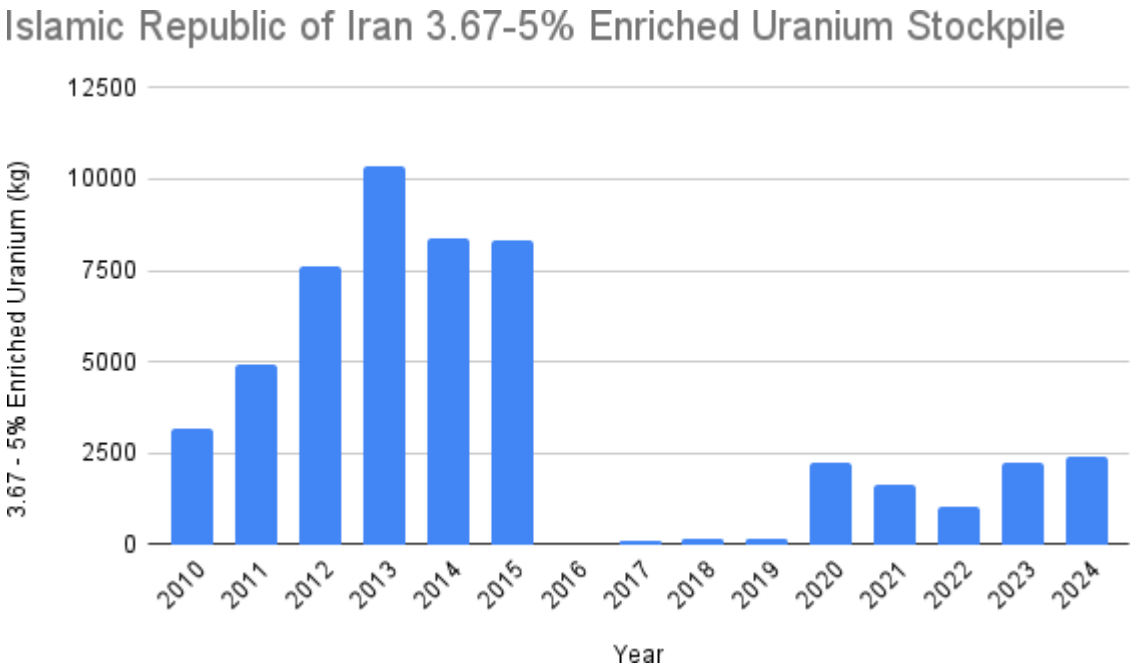


*Figure 4 (source: IAEA)*

Iran's stockpile of uranium enriched up to 5% U-235 remains constant throughout both JCPOA and maximum pressure years and only begins to increase at the end of the Trump presidency.

*Appendix A.4: Approaching Weapons-Grade Uranium*

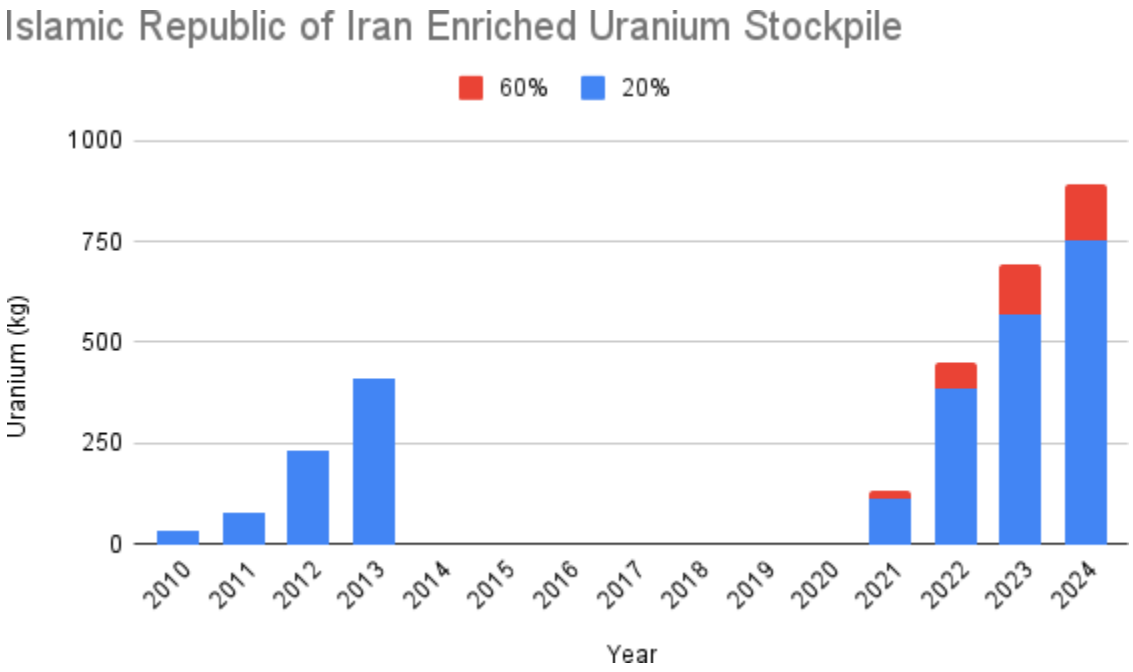


*Figure 5 (source: IAEA)*

Both JCPOA and maximum pressure prevented the Islamic Republic of Iran from enriching uranium to 20% or higher U-235, but appeasement had the opposite effect.

**Appendix B: Terrorism and Military**

*Appendix B.1: Military Expenditure*


*Figure 6 (source: World Bank)*

Evident in Figure 6 is the rise in the Islamic Republic's military expenditure during the JCPOA years. Upon the beginning of the maximum pressure campaign, military expenditure drops sharply. During the Biden administration, military expenditure increases rapidly and reaches JCPOA-era levels by the end of 2022.

*Appendix B.2: Proxy Group Terror Attacks*

Numbers from Hamas and Palestinian Islamic Jihad are excluded since support from the Islamic Republic is not the sole or even dominant factor behind their actions. Funding from Qatar as well as embezzlement of UN aid corrupt the analysis.

Ansar Allah (Houthi) attacks are also excluded due to the ongoing state of civil war within Yemen, in addition to conflict with Saudi Arabia.

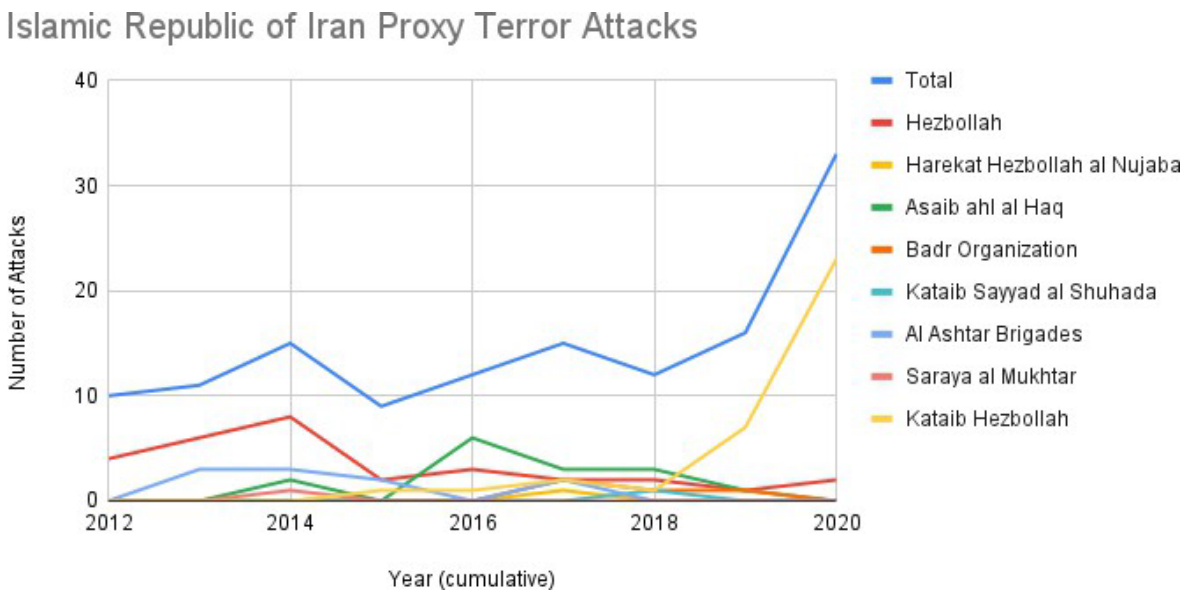


*Figure 7 (source: UMD START Global Terrorism Database)*

Figure 7 indicates a roughly steady total number of terror attacks by Islamic Republic proxies during JCPOA years with respect to the previous years while the latter two years of maximum pressure see a significant increase in attacks.

A closer analysis reveals that the increase in total attacks is due entirely to the rise in recorded attacks by Kataib Hezbollah in Iraq. In particular, Kataib Hezbollah attacks increased rapidly

starting in October 2019 and continuing smoothly through 2020. This trend matches perfectly with the opening of the Al Qaim border crossing with Syria on September 30, 2019, suggesting the increase in attacks is due largely to the official role Kataib Hezbollah plays in Iraq's security apparatus. Therefore, we remove Kataib Hezbollah from the analysis.

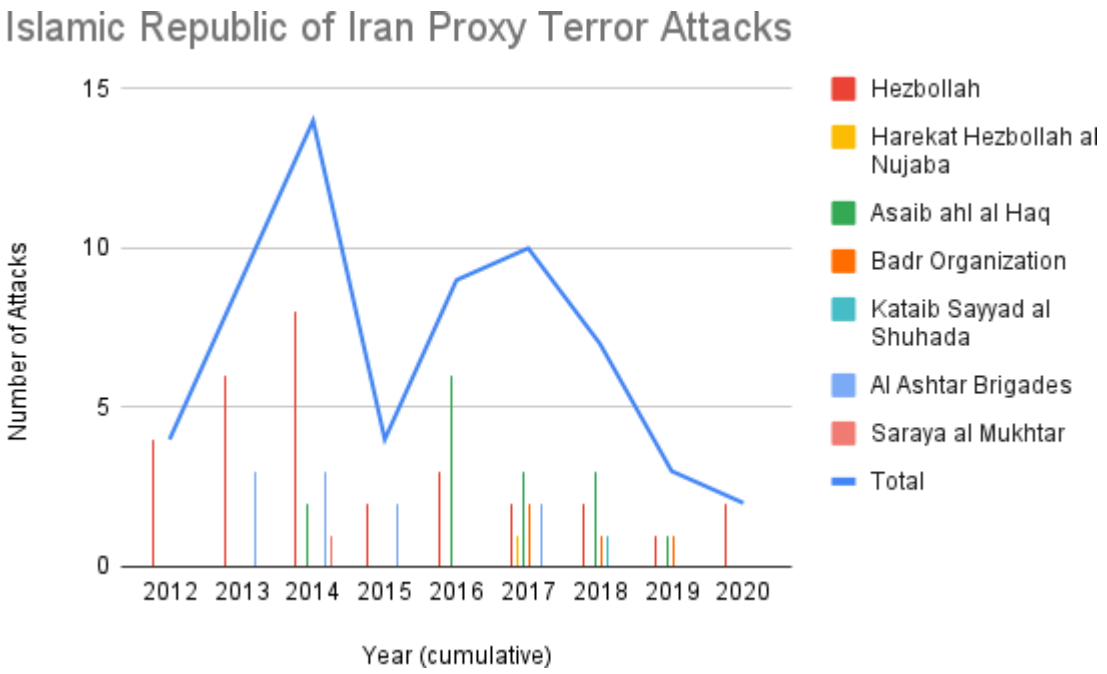


*Figure 8 (source: UMD START Global Terrorism Database)*

Figure 8 exhibits a marked spike in proxy terror attacks in 2016 and 2017, during the JCPOA, compared to previous years. The obvious exception to the rule in 2014 coincides with the peak of Islamic State (Daesh) territorial gains.

The proxy terror attacks then drop rapidly beginning in 2018 and continuing steadily through 2020, the duration of the maximum pressure campaign.

Furthermore, as illustrated below in Figure 9, the number of proxies active in any given year doubles by the end of the JCPOA years compared to prior years. During the maximum pressure regime, the number drops, reaching its lowest point, by the end of 2020.

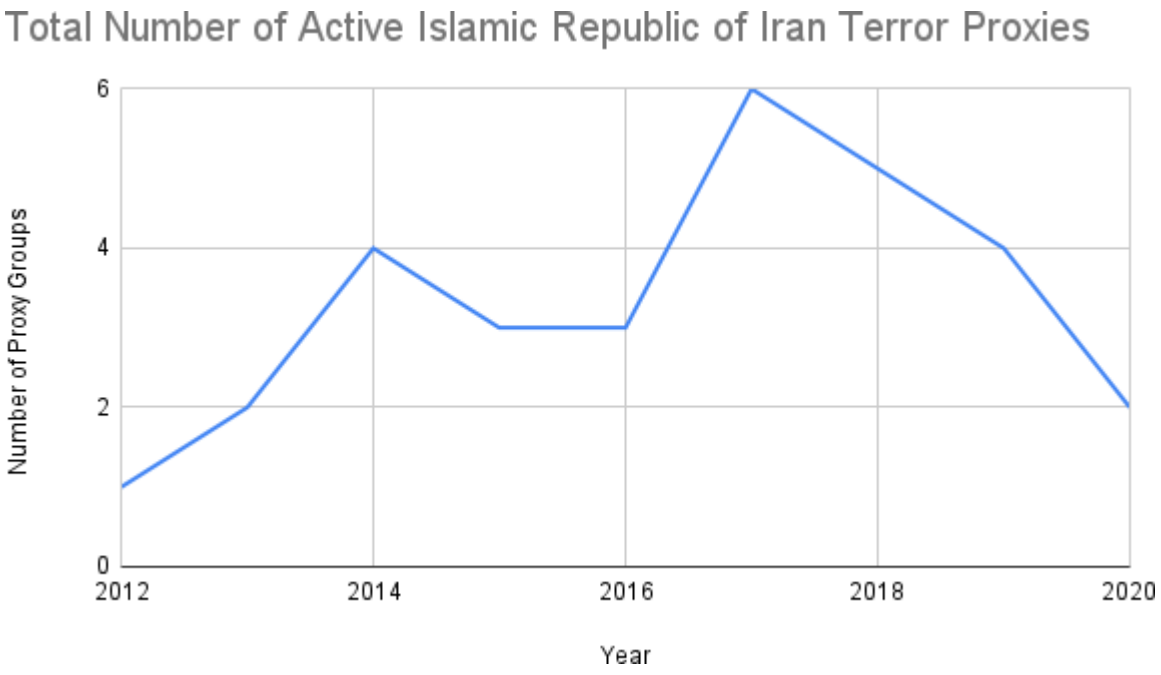


*Figure 9 (source: UMD START Global Terrorism Database)*

**Appendix C: Social and Economic Factors**

*Appendix C.1: Executions*

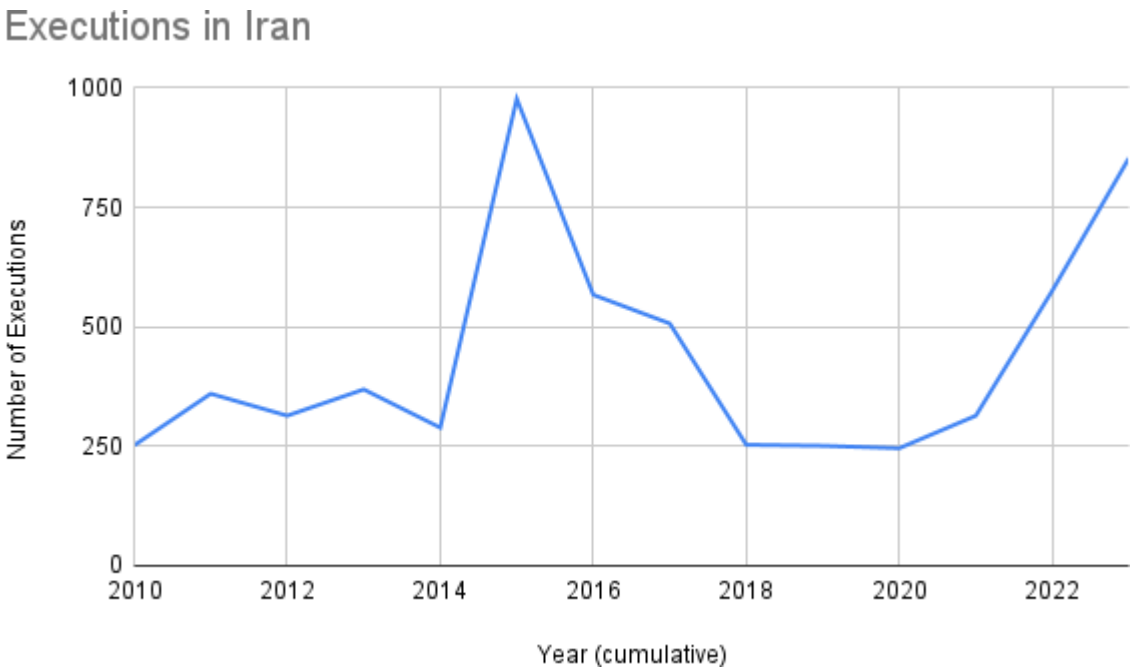


*Figure 10 (source: Death Penalty Information Center)*

Executions in Iran spiked alongside the 2015 creation of the JCPOA and maintained record highs during the JCPOA years. In 2018, at the beginning of the Trump administration's maximum pressure, executions dropped suddenly, maintaining a roughly constant value throughout the campaign. However, during the Biden administration, the executions rapidly increased yet again.

*Appendix C.2: Iranian Rial Purchasing Power Parity*

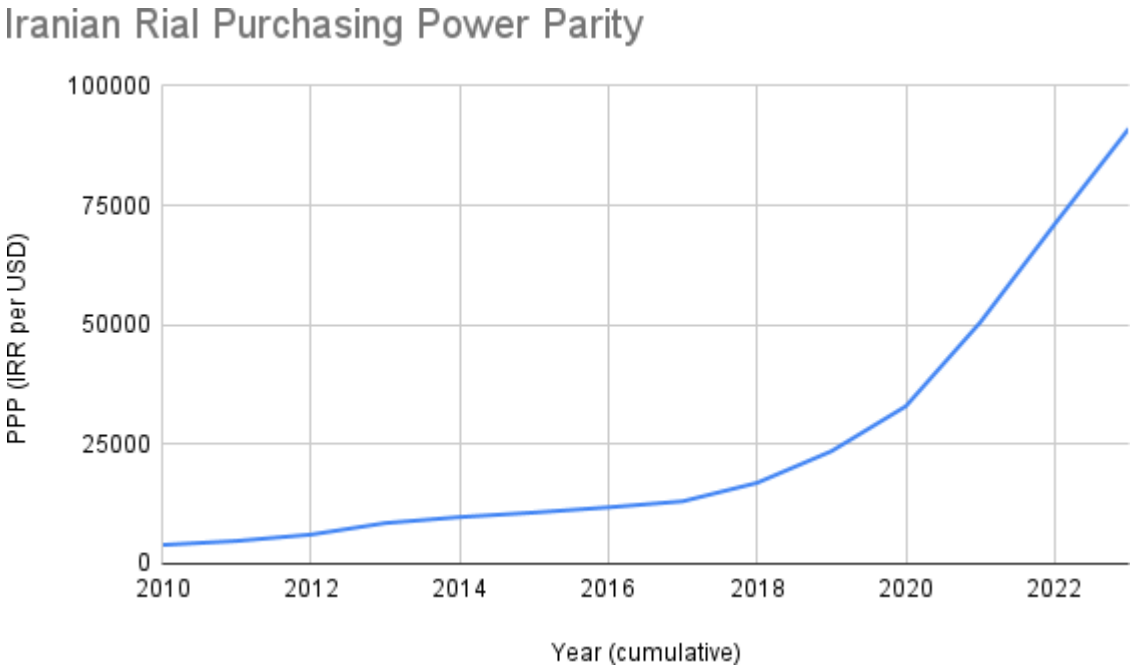


*Figure 11 (source: World Bank)*

The PPP of the Iranian Rial is constantly increasing at a slow rate from before the JCPOA years, continuing through the JCPOA-era. Maximum pressure sanctions led to a slight rise in the rate of increase of PPP. After the start of the Biden administration, the rate rose yet again, despite the sanction waivers.

*Appendix C.3: Iranian Oil Production and Exports*

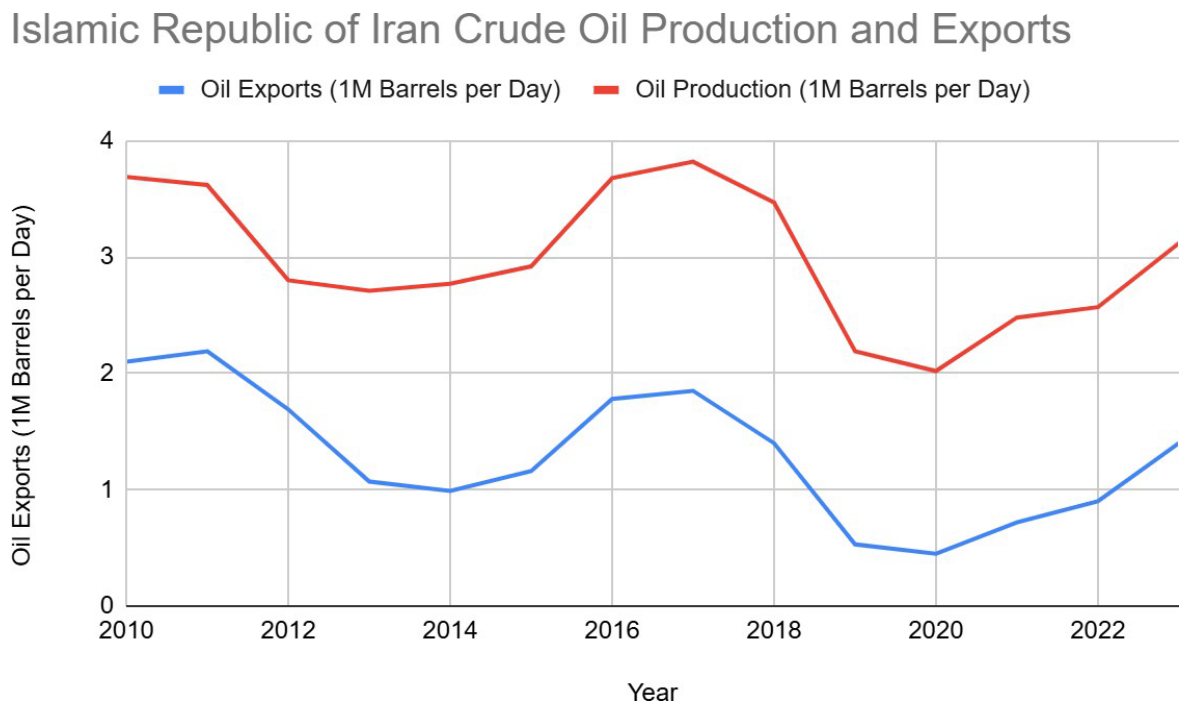


*Figure 12 (source: IMF)*

Figure 12 tracks Iranian oil production and exports throughout the ebb and flow of sanctions over the past decade and a half.

**Appendix D: Full Maximum Pressure Sanctions**

- **Nuclear Sanctions**
    - Reimposed sanctions targeting Iran's trade in gold, industrial metals, automotive sector, and foreign currency assets.
    - Targeted companies and individuals in Iran, Belgium, and China linked to the international procurement network for Iran's nuclear program.
    - Targeted individual scientists supporting Iran's nuclear program.
    - Classified Atomic Energy Organization of Iran (AEOI) and its head, Ali Akbar Salehi, as Weapons of Mass Destruction (WMD) proliferators.
    - Sanctioned a petrochemical smuggling network and involved entities.
- **Missile Sanctions**
- Targeted Iranian officials assisting the Houthis in Yemen.
- Sanctioned missile procurement networks and affiliated companies and businessmen in Iran and Hong Kong.
- Designated Iran's space program for supporting developing ballistic missile technology.
- Targeted Iranian transportation companies for importing WMD materials and supporting missile programs.
- Sanctioned Mahan Air sales agents to curtail new weapons deliveries to Houthis.
- Further metal industry sanctions for involvement in ballistic missile testing.
- Sanctioned Chinese and Russian companies supporting Iran's missile program.
- **Terrorism Sanctions**
    - **Banks and Businesses:**
        - Sanctioned Central Bank of Iran and relevant officials for moving funds to Hezbollah on behalf of Quds Force.
        - Sanctioned other major Iranian banks to stop illicit access to U.S. dollars.
        - Targeted Iraqi Al-Bilad Islamic Bank and its chairman for aiding Quds Force.
        - Sanctioned Iranian business network supporting the Basij Resistance Force.
    - **Oil Industry:**
        - Sanctions on Iranian oil tanker, Adrian Darya-1, and its captain for transporting oil on behalf of the IRGC.

        - Designation of "oil-for-terror network" consisting of companies and individuals aiding IRGC with illicit oil sales.
        - Sanctioned companies based in China, Hong Kong, Singapore, and UAE, along with executives for importing Iranian oil or purchasing petroleum products.
        - Sanctioned captains of ships delivering Iranian gasoline to Venezuela.
        - Targeted Iran's Ministry of Petroleum and Minister of Petroleum Bijan Zanganeh, the National Iranian Oil Company (NIOC), the National Iranian Tanker Company (NITC).
    - **Military, Proxies, and Procurement Networks:**
        - Sanctioned currency exchange networks procuring funds for Quds Force and proxy forces.
        - Sanctioned members of Hezbollah's Shura Council for involvement in Iran-backed terrorism.
        - Designating finance networks of Lebanese and Turkish companies and individuals as Specially Designated Global Terrorist (SDGT) for supporting Iran's military organizations, and sanctioning various other companies for funneling money into Iranian weapons programs.
        - Designation of IRGC, various Iraqi militias, and Bahrain-based groups as Foreign Terrorist Organization (FTO) or SDGTs.
        - Sanctioning airlines such as Mahan Air and Qeshm Fars Air and various companies for ferrying Iranian weapons and supporting terrorism.
        - Sanctioning Supreme Leader Ali Khamenei, eight senior IRGC commanders, and Iranian Foreign Minister Mohammad Javad Zarif.
- **Cyber Sanctions**
    - Sanctioned cyber criminals for exchanging digital currency paid by ransomware victims for Iranian Rials.
    - Sanctioned cyber espionage groups involved in cyberattacks on US government and military personnel.
    - Sanctioned three Iranian media outlets for spreading disinformation.
- **Human Rights Sanctions**
    - Sanctioned Ansar-e Hezbollah, Basij-linked paramilitary group for human rights abuses.
    - Targeted judiciary and military officials involved in execution of juveniles and persecution of minorities.
    - Sanctions on communications minister Mohammad Javad Azari Jahromi for internet censorship (particularly after the Bloody Aban protests)
    - Targeted specific IRGC commanders for authorizing lethal force on protestors during Bloody Aban.

- Sanctioned intelligence minister Mahmoud Alavi for complicity in human rights abuses.
- Sanctioned Guardian Council members for unilateral disqualification of thousands of parliamentary candidates.

United Against a Nuclear Iran (UANI) has compiled a comprehensive timeline of Iran sanctions.

# Beyond the Battlefield: Assessing U.S. Military Intervention in Iraq, Syria, and Libya Through Governance, Conflict Resolution, and Human Rights (2014–2021)

Mihir Sharma

**Abstract:**

This paper evaluates the effectiveness and limitations of U.S. military intervention in Iraq, Syria, and Libya between 2014 and 2021, with a focus on governance, conflict resolution, and human rights. Drawing on metrics from the Fragile States Index (FSI), Global Peace Index (GPI), and V-Dem Human Rights Index, it analyzes the extent to which U.S. actions correlated with changes in state stability, levels of conflict, and civilian well-being. While operations such as "Operation Inherent Resolve" successfully weakened terrorist groups like ISIL and led to temporary improvements in certain stability indicators—particularly in Iraq—results across all three countries were inconsistent and often ambiguous. Human rights outcomes remained stagnant or worsened, and refugee trends varied widely, especially in Syria. The findings suggest that U.S. interventions, while tactically effective in the short term, fell short of fostering sustainable governance and protecting human rights due to insufficient emphasis on nation-building and long-term political reform. The paper concludes by recommending a strategic shift toward comprehensive post-conflict engagement that addresses the root causes of fragility to ensure more lasting outcomes.

## Background

In mid-June of 2014, the United States deployed troops to the Republic of Iraq, upon the latter's invitation. Then US President Barack Obama provided these forces to protect the US embassy and its personnel in Baghdad after the capture of Mosul by the Islamic State of Iraq and the Levant (ISIL). Between June and July, the US began flying manned aircraft over Iraqi territory, increased its deployed troops by hundreds of additional forces, and committed to a larger presence in the region to both advise Iraqi security forces and combat ISIL operations through both airstrikes and ground forces (Carter et al., 2014). The intervention in Iraq was given an official name, "Operation Inherent Resolve", in October 2014. Although Inherent Resolve is an ongoing campaign, its main operations ended in March 2020 when the US began withdrawing troops from Iraqi military bases. This decision came following an Iraqi parliament vote to force foreign troops to be removed from the country's territory. From the early invitation of US forces to their ultimately demanded expulsion, the US intervention in Iraq from 2014-2021 was rooted in controversy (Arraf, 2020). Supporters of the US presence argued that Iraqi civilians were protected from human rights abuses and general violence as a result of American operations. Additionally, the process of nation-building both during and after the conflict reinforces supportive beliefs of American intervention, arguing the potential for long-term sustainability of

a more stable, democratic state. Critics on the other hand, severely criticized the continued occupancy of Iraq. Beyond the suffering of American casualties, the perceived misuse of taxpayer money, and civilian deaths, large skepticism of any potential benefits for the Iraqi people and the republic as a whole significantly contributed to condemnation of the US intervention.

The issue of US military intervention has been hotly debated for nearly a century, stretching back to isolationist policies in both World War I and World War II and reaching a historic level of contention during the Vietnam War. The 21st century has not gone by without a continuation of this pattern. US presence in the Middle East and North Africa has seen a similar level of polarization among the public. This issue's effects on multiple scales, from local to global, warrant an informed discussion. On an individual level, civilians in occupied countries have their livelihoods directly influenced by US operations, for either the better or worse. Nationally, the stability of a government is affected by conflict, and nation-building, or a lack of such a process, can help or hinder this trait. On the international scale, the impact of US intervention plays a role in regional migration patterns, preventing human rights violations, and potentially securing or implementing a less fragile government. The multi-faceted approach of US involvement in foreign conflicts, from direct military support and training to government advising, along with a severe reduction in ISIS activity in Iraq makes a strong case for these interventions to be effective in supporting human rights and promoting stronger nation-building in the face of terrorist groups or similar malevolent actors. To fully examine this claim however, the comparison of a variety of factors between pre-intervention and post-intervention cases, from state fragility to conflict-related deaths, must be viewed to gain a better understanding of the true impact of US military action. Similar to the situation in Iraq before and after Inherent Resolve, US interventions in both Syria during the same campaign and Libya during its second civil war make these three cases comparable and essential to understanding the 21st century implication of US engagement in foreign conflicts.

**Governance, Conflict, and Resolution**

US intervention in a foreign conflict undoubtedly touches on the 'C' in "GCR" but equally important to this question are analyzing the effects on governance and the resolution to the conflict. One method of examining the US effect on governance is through the Fragile States Index (FSI). The FSI measures a state's vulnerability to collapse, with a higher score, the maximum being 120, indicating more fragility. This measure can allow one to view the stability of the Iraqi, Syrian, and Libyan governments before, during, and after US intervention. In 2014, at the beginning of Inherent Resolve, Iraq held an FSI score of 102.2, ranking it the 13th most fragile government at the time. Although this measurement reached a local peak at 105.4 in 2017, it has steadily declined until the present. In 2021, Iraq's FSI score was 96.2, causing it to

drop seven places in the ranking of the most fragile states (Fund For Peace, 2024). This implies a potential correlation between US intervention and the ability of Iraq to form a more stable government. In the cases of both Syria and Libya, a stagnation of worsening fragility is seen, rather than a decline. For both states, a sharp increase in vulnerability began in 2011 but became stable between 2015 to 2016 (Fund For Peace, 2024). This stabilization came at the same time as a US military presence was established in both states. This implies a correlation between a better FSI score or a better FSI trend and a US intervention. However, this does not necessarily guarantee causation. On the contrary, Anthony Cordesman, a leading national security analyst at the Center for Strategic and International Studies (CSIS), heavily criticized the US attempts at promoting strong governance in Iraq. Cordesman argued that "the U.S. claimed that ISIS was largely defeated by March 2020, and removed many of its forces while cutting much of its already low level of support for nation-building while focused most civil aid on humanitarian aid", a combination that certainly did not contribute to the foundation of a stable state (Cordesman, 2020). However, the author does acknowledge that Iraq "had at least some aspect of peace", a characteristic of the country that could have allowed them to focus on sustaining this condition and fixing their efforts on promoting good governance (Cordesman, 2020). Therefore, it remains uncertain whether US intervention directly led to the improvement of FSI scores for these three countries. However, the effects of conflict resolution and a mitigation of violence from malevolent actors could have certainly given the opportunity for each state to engage in constructing a stronger system of governance.

As a result of its strong emphasis on direct military action, the US interventions in Iraq, Syria, and Libya principally addressed the issue of conflict in each state. US operations served to fight the threat of terrorism in each state. In addition, the US-trained friendly forces in each state to maintain peace after a withdrawal of forces. To understand the impact of these actions on conflict resolution, the Global Peace Index (GPI) can be utilized to compare the levels of peacefulness in a state throughout US intervention. Published by the Institute for Economics and Peace, the GPI uses 23 indicators revolving around conflict deaths, homicides, and incarceration to determine a state's level of peace, with an overall higher score signifying less peace (*Global Peace Index 2014 - Institute for Economics & Peace*, 2014). At the beginning of Inherent Resolve in 2014, the overall GPI score for Iraq and Syria were 3.38 and 3.65 respectively. Libya's score was initially much better, at 2.45. Seven years later, following the withdrawal of troops from Iraq, the state "recorded the second largest increase in peacefulness in the 2021 Global Peace Index, with its score improving by 4.3%. The country [was] ranked 159th overall, with improvements across all three GPI domains" (Castle, 2021). By 2021, Iraq's GPI score improved to 3.257. Syria's remained nearly the same at 3.371 and Libya's had significantly deteriorated to 3.166 (*Global Peace Index 2014 - Institute for Economics & Peace*, 2014). These three outcomes are significantly varied. Such a diverse set of results could lead one to presume that US intervention does not represent a pattern of benefit when it comes to peacefulness in a state. Focusing on Iraq, the US achieved its goal in causing "the territorial Islamic State [to be]

dismantled", yet as Fawaz Gerges analyzes in *Isis: A History*, "while IS remains a shadow of its former self, penning the group's obituary would be premature" (Gerges, 2016). As mentioned previously, with thousands of active combatants still willing to give their lives for the cause, the group has increasingly morphed into a low-tech, low-cost, largely rural insurgency, carrying out frequent and deadly hit-and-run attacks in Iraq and Syria and beyond (Gerges, 2016). While American intervention certainly aided in both Iraq and Syria's aim to combat ISIL, the enduring threat of terrorism and its ability to survive organizational collapse allowed the violence in these two Middle Eastern states to proceed, a trend reflected in the Syrian GPI measurement in Iraq's improved yet precariously high score of 3.257. Libya's rapid decrease on the other hand, signifies the potential ignorance of US military action. American intervention in Libya similarly focused primarily on fighting ISIL. This overlooked the multi-faceted nature of the conflict as "rival armed groups, including militias loyal to Haftar and the GNA's security forces, continued fighting over access to and control of Libya's National Oil Corporation (NOC) and regional oil fields" (Center for Preventive Action, 2023). This could explain why Libya's level of peacefulness decreased despite US-backed efforts that severely reduced ISIL operations. No action, likely intentionally, was taken to involve the US campaign deeper into the Second Libyan Civil War. In sum, the US reduced the threat of one armed group while leaving countless others in the way to continue the fighting over control of Libya and its resources. Through the widely differing responses in peacefulness, it remains unclear whether American military action significantly reduces overall conflict post-intervention.

A dive into the connections of governance, conflict, and resolution to this issue reveals multiple potential answers to one part of the question. First, the lack of nation-building processes in general during US intervention supports the idea that American foreign policy measures do not directly aid in creating stronger governance. However, the prevention of terrorism and violence can offer the foundation of good governance to be discussed and developed further. Conflict statistics and their resolution as a whole are much more ambiguous. With highly dissimilar responses in GPI scores, it remains unclear whether intervention aided the overall peacefulness of a state, making US military action's contribution to conflict resolution much less impactful.

**Human Rights**

The successful protection of human rights after an intervention is essential to preserving the freedoms and liberties of affected peoples after the conflicts. US military operations consistently support humanitarian efforts, and aiding the civilian population is a commonly stated goal of intervention. However, whether or not human rights conditions improve in a state or not remains to be determined. One procedure to identify changes in overall human rights trends comes from the V-Dem Institute (Varieties of Democracy). V-Dem's human rights index captures essential characteristics such as freedom of religion and safety from torture or political killings (*Human Rights Index*, 2024). The Universal Declaration of Human Rights supports many of these

characteristics, evidence of which can be seen in its support for freedom from “arbitrary arrest” or “degrading treatment or punishment” (United Nations, 1948). At the beginning of Inherent Resolve, Iraq’s score was at 0.43 (a score of 1 is the highest). Similarly, Libya stood at 0.4 while Syria remained far behind at 0.06. Throughout the time of US intervention in each state, no significant increase in the index scores for any of the three states can be seen. By 2021, both Iraq and Libya’s scores fell by 0.02 and 0.07 respectively, while Syria recorded a minor uptick of 0.02 (*Human Rights Index*, 2024). The lack of a positive impact in this factor represents a failure to improve the human rights condition in each state. Although this measurement directly relates to human rights, it also reveals a connection to the concept of governance. Through relatively little emphasis on direct nation-building, the US did not promote a strong system of governance in any of the three states that would develop protections for human rights. When looking specifically at Iraq, “ while the fight against IS helped to rebuild the Iraqi armed forces, it also reinforced the power of sectarian armed militias that [were] not accountable to the state, that intimidate the population, and that offer[ed] increased opportunities for plunder and patronage” (Al-Rahim, 2023). The American intervention in Iraq, while successful in preventing human rights abuses from ISIL militants against Iraqi civilians, failed to account for subsequent militant groups that operated using similar methods. As a result, violent human rights abuses remained rampant following the withdrawal of US troops.

A large issue related to human rights is the outpour of internally displaced persons (IDPs) and refugees from a conflict-riddled area. Examining migration patterns, particularly in the case of these two groups, can allow one to see the severity of ‘push factors’ in a region. Through the UN Refugee Data Finder, it is clear that US intervention did significantly reduce refugee and IDP levels in Iraq and Libya, yet failed to do so in Syria. From 2015 to 2021, Iraq’s IDP count dropped 3 million while Libya’s fell 300,000 (“Refugees”). The refugee levels however, remained roughly the same, with a minor increase. This fall in IDP numbers can be attributed to the American protection of Iraqi and Libyan civilians from ISIL. As Refugees International found, “the Islamic State’s brutal 2014 and 2017 insurgency [-] displaced millions of people in Iraq” (*Iraq*). The mitigation of ISIL supported human rights in both Iraq and Libya enabled a minimization of refugees and displaced people. This represents a global impact as an influx of refugees to neighboring countries undoubtedly put strain on the entire Middle Eastern region, as well as causing tensions in Western states that refused to admit asylum-seekers. Syria’s case on the other hand, is a sharp contrast to this decline. Between 2015 and 2021, Syrian refugees increased by roughly 2 million, and IDPs increased by around 200,000 (“Refugees”). This development highlights the idea that US intervention focused on one group, in these cases ISIL, does not comprehensively address the problem of conflict in a state. On the contrary, it can lead to increased violence among sectarian lines as a result of a power vacuum in certain regions. The contrasting trends between an Iraqi and Libyan decrease and Syrian increase in IDPs and refugees complicates a definitive answer on how much US military action protects human rights and the right of people to live in safety, without fear of harm.

The topic of human rights connects perfectly to the goal of US intervention. The aim of protecting civilian lives during the conflict and promoting long-term human rights goals are certainly addressed by US military action against ISIL. However, the statistics reveal equivocal results. With decreasing V-Dem scores, it would be highly inaccurate to suggest that intervention contributed to the development of human rights. Varying data among refugee populations in Iraq, Libya, and Syria further muddle a clear answer on the topic.

**Potential Changes**

While there has undoubtedly been action taken by the US to become involved in foreign conflicts, the problems faced by these states before and after intervention display an unsuccessful record. The ambiguity surrounding the impact of US military action as it relates to governance and human rights symbolizes the need for a change in the policies of intervention. American interventions are not impressively successful, yet they do not cause unprecedented levels of harm either. An essential part of this issue lies with the idea that terrorism, a driving factor for states the US becomes militarily involved in, is nearly impossible to fully eliminate. The ability of groups to rapidly recruit new members, the lack of a well-defined organizational structure, and the underlying causes of terrorism never being addressed to prevent further militancy all contribute to a virtual impossibility of eradicating the threat. Additionally, rooting out terrorism does not equate to developing lasting peace in a state. As Cordesman writes in a CSIS report, "defeating ISIS may or may not ease the tensions between Libya's two de facto governments in its west and its East" (Cordesman, 2016). Treating the "symptoms" of failed governance will never address the true cause of the issue. There is typically a systemic problem in the state that the US intervenes in. This is especially true in the instance of Iraq. While in 2003, "The United States had some 5,200 advisors" to aid Iraq, "it has no clear plan for the future" and "has effectively abandoned any serious efforts at economic reform, stability, and growth" (Cordesman, 2020). To establish a less fragile system in Iraq, a continuation of advising, with particular attention given to the state's political culture and reigning ideologies, must be utilized. A lack of emphasis in this area threatens the stability of post-intervention Iraq, Syria, and Libya, and eliminates the possibility of a lasting, positive impact on any of these states.

**Conclusion**

US intervention in Iraq, Syria, and Libya reveals a pattern of uncertain outcomes. In certain measurements for specific cases, such as the FSI index of Iraq, the timeline of US intervention correlates with the betterment of the score. On the other side, post-intervention Syria saw an increase of nearly two million refugees over a period of six years, showcasing a potential drawback of US involvement. This issue relates to both governance, conflict, and resolution, in addition to human rights. The underlying causes that propel US intervention can be found in governance, and these factors are typically not addressed by American action. In addition, human

rights are greatly impacted through both their improvement in post-intervention states and by facing direct effects of military action, such as the increase in displaced peoples. The relatively low benefits of US intervention urge policymakers to incorporate more nation-building into post-conflict governments and address initial causes of such issues. Only then can lasting stability have a higher chance of being established.

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# Japanese Anti-Ballistic Missile Program and the Evolution of Air Defense in the Western Pacific

Max Ellman

## Abstract

This paper analyzes the evolution, current status, and future of the Japanese ballistic missile defense program and how recent shifts in the security landscape and the development of new ballistic threats have affected Japanese defense priorities. Japanese missile defense capabilities have undergone a major shift from a near non-existent capability at the turn of the century to a modern priority of self-reliance, allied support and defense against modern Chinese and North Korean missiles and hypersonic glide vehicles.

The latter half of the 20th century saw a major increase in the capability and number of ballistic missiles in a conventional battlefield role as short range ballistic missiles (SRBMs) and intermediate range ballistic missiles (IRBMs) became common across the world. This increase in threats has led to a renewed effort to develop and deploy countermeasures to them and this has become a top priority for the Japanese Self Defense Force (JSDF). The JSDF finds itself in a unique situation with increasingly capable and longer-range ballistic threats being deployed by nations around it (Swaine et al., 2001).

In order to contend with this situation, the JSDF has spent the past 2 decades building up an impressive ballistic missile defense capability with plans to further expand and modernize this capability in the near future. Japanese ballistic missile defense consists of a combination of land-based, sea-based, and allied, detection and engagement platforms in order to maximize the probability of a threat being discovered, located, and neutralized before causing damage. In the face of new threats such as hypersonic glide vehicles the JSDF plans further expansion not only to effectively shoot down these threats but also to develop a counter-strike capability to retaliate to launches.

**History of Japanese Ballistic Missile Defense**

The Japanese government first pursued a serious ballistic missile defense plan in 1998. Spurred on in part by a test launch of a North Korean ballistic missile that flew over Japanese territory, the nation embarked upon a joint research and development project with the United States for Western Pacific ballistic missile defense (Swaine et al., 2001). At the turn of the century, Japan fielded limited missile defense capability in the form of MIM-104 Patriot PAC-2 land-based air defense systems and SM-2MR missiles fired from Kongo class Aegis destroyers. While capable, neither system was tailored for ballistic missile defense, having been primarily designed to counter Soviet aircraft or anti-ship missiles, nor were they considered adequate for defeating existing or future threats. By 2003, Japan had fully committed to pursuing ballistic missile defense, as evidenced by the allocation of a budget for the program for FY 2004 (Japan Ministry of Defense, 2009).

The first tangible missile defense systems that the JSDF fielded was the MIM-104 Patriot PAC-3, which was first deployed in March 2007; this was quickly followed by the integration of Aegis Ballistic Missile Defense upgrades on the destroyer JS Kongo, which successfully fired an SM-3 anti-ballistic missile in December of the same year (Japan Ministry of Defense, 2009). These two systems would form the bases of the kinetic portion of Japan's ballistic missile defense through the modern day, and continuing upgrades ensure they can counteract increasingly capable threats. Between 2007 and 2017, the JMSDF commissioned several more Aegis destroyers and began upgrading its land-based long range radar capabilities. To that end, they introduced FPS-5 radars, upgraded their FPS-3 radars, and eventually employed FPS-7 radar sites (Japan Ministry

of Defense, n.d.). Through the 2010s, Japan also worked with the United States to develop advanced versions of the SM-3 missile to better counter newer threats (Boese, 2015).
As Japan built up its capabilities, the threats it had to contend with became more lethal. Through the 2000s and 2010s, the People's Republic of China fielded an increasing number of progressively capable ballistic missiles, such as the DF-15 and DF-16 SRBMs; the DF-21 MRBM; the YJ-21 anti-ship ballistic missile; and more recently, the DF-17, a weapon tipped with a hypersonic glide vehicle (Japan Ministry of Defense, n.d.). North Korea has also expanded its missile capabilities. Its new weapons range from SRBMs to ICBMs, and its government claims there are hypersonic boost glide vehicles in its arsenal. North Korea now fields hundreds of ballistic missiles, possibly thousands, many with increasingly modern designs, (Narushige, 2023) such as the Hwasong 17 ICBM and Hwasong 11 IRBM. The shorter-range weapon was allegedly combat tested in Ukraine (Conflict Armament Research, 2024).
In 2017, the Japanese MOD took another major step in improving Japan's missile defense capabilities with the order of two Aegis Ashore sites to be armed with SM-6 and SM-3 missiles (O'Rourke, 2025). These sites were meant to work with the existing BMD assets to counter newer threats while also increasing versatility via the SM-6; they were effective not just against ballistic missiles, but also against cruise missiles and hypersonic glide vehicles (O'Rourke, 2025). Japan selected the advanced Lockheed AESA SPY-7 radar to equip the sites, giving them a far superior detection and targeting capability than that of the existing Aegis assets (*SPY-7*, 2022). Despite these plans, Japan announced in 2020 that it had cancelled its Aegis Ashore contract, officially due to the possibility of boosters from fired interceptor missiles landing on residential areas (Unbehauen & Decker, 2020). Instead, two more Aegis-equipped surface vessels will be constructed for the JMSDF (Rahmat, 2024). These new vessels utilize the same SPY-7 (Japan Ministry of Defense, n.d.) radars that had been planned for the Aegis Ashore sites, thus expanding their capabilities beyond those of current JMSDF destroyers. The program has gone through several different phases of design, and the final one started in February 2024.
In addition to the ability to detect and shoot down missiles, Japan recently began investing in counterstrike and deterrence capabilities, primarily through the acquisition of longer-range missiles that are both foreign and domestically designed. The primary system acquired to fulfill such a role is the Raytheon RGM-109 Tomahawk Block V and IV (Japan Ministry of Defense, 2024). This new generation of proven American land attack cruise missiles gives the JSDF the ability to strike back against possible aggressors, helping to deter possible missile attacks or retaliations with a counterstrike.

The modern JSDF has a robust ballistic missiles defense system that will continue to evolve as new threats emerge. The current and future JSDF missile defense program is known as Integrated Air Missile Defense (IAMD) (Japan Ministry of Defense, n.d.) and can be divided into several different components which all work in concert to create a layered detection, tracking, and engagement system that is linked through Japan Aerospace Defense Ground Environment (JADGE) command structure. Japan plans to expand its IAMD capabilities in the

coming years, and 537 billion yen are allocated for the program in FY2025 (Japan Ministry of Defense, 2024).

**Sea-based Component**

The sea-based portion of Japan's ballistic missile defense program has received significant media attention in recent years due to the announcement of two new large Aegis warships. These vessels are referred to as the Aegis System Equipped Vessels (ASEV) and will join the eight Aegis destroyers already in commission with the JMSDF sometime in the late 2020s (Japan Ministry of Defense, 2024). Aegis equipped warships represent the kinetic centerpiece and upper tier of Japan's IAMD ballistic missile defense program, boasting detection, targeting, and engagement capabilities. The sea-based component of IAMD is primarily focused on destroying ballistic threats in the mid-course phase of their flight when they are at their highest altitude (Japan Ministry of Defense, n.d.).

All the Aegis warships of the JMSDF that are already in commission are derivatives of the American Arleigh Burke class of destroyers; four ships are of the Kongo class, and the more recent Maya and Atago classes each have two ships per class (Japan Ministry of Defense, n.d.). Each of these vessels use American SPY-1D phased array multifunction radars for target tracking and identification (O'Rourke, 2025). This is the same radar system used on American Arleigh Burke and Ticonderoga class ships, and it has recently proven effective, having successfully tracked Houthi ballistic missiles (U.S. Central Command, 2024). All these ships also utilize the Mark 41 Vertical Launch System (VLS) to house and fire the majority of their missiles. The Kongo class ships have 90 VLS cells (29 cells forward and 61 cells aft) while the Maya and Atago classes have 96 cells (64 cells forward and 32 cells aft). These ships are all armed with the Strike Length VLS, allowing them to carry a full suite of missiles. For the purpose of ballistic missile defense, this includes the SM-2MR semi-active radar guided air defense missile; the SM-3 anti-ballistic missile, which is the most potent system for BMD; and the SM-6 long range active radar guided air defense missile (O'Rourke, 2025). In addition, weapons such as the Evolved Sea Sparrow air defense missile and ASROC anti-submarine rocket can be carried but are not relevant to BMD.

In all, Japan's sea-based BMD component forms a fully functioning detection, targeting and engagement system capable of handling ballistic threats both on its own and in conjunction with other systems through JADGE. Japan's fleet of Aegis destroyers is supported by several other classes of warships, such as the Asahi class destroyers and Izumo class light aircraft carriers. While these vessels do not directly contribute to the IAMD system, they support and are supported by the Aegis destroyers in fleet operations, ensuring that the Aegis ships are able to perform their job (Japan Ministry of Defense, 2024). In addition, the Aegis ships are fully

capable of conducting more conventional naval actions alongside these other vessels, adding to their strategic importance to Japan's overall defensive posture.

Japan plans to add the two new ASEVs to its fleet in the late 2020s. (Japan Ministry of Defense, n.d.) These vessels received much media attention shortly after their announcement due to the initial plan calling for two monstrous 20,000-ton or more warships (LaGrone, 2022) putting them in contention for the distinction of largest active surface combatants in the world. This plan has since been downsized to a much more reasonable 12,000-to design more comparable in size to ships like China's Type-055. These new vessels will offer a major step up in capability in BMD from the existing Aegis ships. Their new SPY-7 radars have significant improvements in target tracking and detection compared to the older SPY-1D radars (*SPY-7*, 2022). In addition, these new vessels could be armed with a next generation interceptor meant to counter Hypersonic Glide Vehicles (Japan Ministry of Defense, n.d.). This would most likely be the Glide Phase Interceptor, a new missile being developed in conjunction with the US missile Defense Agency (Japan Ministry of Defense, n.d.). These new vessels are set to keep the JMSDF as the true anchor of Japanese IAMD well into the future.

**Land-Based Component**

The land-based component of Japanese IAMD, much like the sea-based one, consists of a series of detection, targeting, and engagement assets, though it differs in that these assets are not integrated onto a single platform. The land-based component of IAMD is meant to engage anything that slips through the sea-based component, focusing on intercepting threats in their terminal phase as they descend on their targets (Japan Ministry of Defense, n.d.).
The most important land-based assets for detection of ballistic missiles are the FPS-3/5/7. These are large, fixed installations that offer advanced detection of ballistic missiles. In total Across the Japanese islands, there are 17 total radar installations for BMD (Japan Ministry of Defense, n.d.). These sensors are capable of detecting ballistic missiles nearly immediately after launch. As a result, they are integral to the sea-based component of IAMD and are interconnected with the Aegis ships through JADGE, helping to detect threats that the ships can then intercept. The JSDF also plans to improve its land-based sensors by upgrading the FPS-5 radars and acquiring mobile radars to work with the fixed sites (Japan Ministry of Defense, 2024). This will increase the networking capabilities of Japanese sensors and provide much needed flexibility and survivability to the radar network.

The major interception asset of Japan's land-based BMD is the American-designed MIM-104 Patriot Air Defense System, specifically the PAC-3 and PAC-3MSE variants that were tailor made to handle ballistic missiles (Japan Ministry of Defense, n.d.). This system is meant to intercept ballistic missiles in their terminal phase as they descend on their targets and represent the lower tier in Japanese interception assets. The PAC-3 interceptor offers comprehensive

defense against SRBMs and MRBMs while the Pac-3MSE offers further capabilities against a wider range of threats. Both missiles use a hit-to-kill system and rely on directly impacting their targets to destroy them. Both missiles, along with the longer-range PAC-2 (which is not optimized for BMD) are guided by the AN/MPQ-53, AN/MPQ-65, or AN/MPQ-65A radar systems; the launchers and radar are controlled by the AN/MSQ Engagement Control Center (*PAC-3*, n.d.). Patriot has decades of combat experience against hundreds of combat intercepts of ballistic missiles, making it a reliable choice for the JSDF. Patriot has even proven itself against hypersonic glide vehicles in Ukraine (*Patriot*, 2023), something it was never designed for. In total, the JSDF fields 28 Patriot fire units across the islands and plans to continue fielding more Pac-3MSE interceptors in the coming years (Japan Ministry of Defense, n.d.).

More recently, the JSDF plans to give its indigenous Type 03 medium range surface-to-air missile a place in IAMD (Japan Ministry of Defense, n.d.). The JSDF plans to give will outfit the system with anti-ballistic missile capabilities starting in 2026 (Japan Ministry of Defense, 2024). Integrating a fully indigenous system into BMD will give Japan a much-needed self-reliance capability; as thus far, all of the JSDF's BMD missiles and most of its sensors and launchers are American-made. While analyzing the effects of Russian missile attacks in Ukraine, the JSDF noted that the latter's defensive capabilities against both cruise and ballistic missiles heavily relied upon Western help in order to stay effective. Having an indigenous system within IAMD would help to mitigate this issue in the event of similar prolonged missile attacks against Japan (Japan Ministry of Defense, n.d.).

**Allied Component**

Since its inception, Japanese ballistic missile defense has been heavily connected to the United States, both in research and development and deployed systems. The United States maintains strong military relations with Japan and has several installations on the Japanese islands; it has a vested interest in keeping Japan safe from missile attack. In addition, mainland Asia generally and North Korea specifically threaten assets of the United States, Japan, and South Korea with ballistic missiles, prompting the latter three countries to develop a cooperative system for defending against possible attacks (Narushige, 2023). Both South Korea and Japan have independently worked with the United States on ballistic missile defense, but recently they began to collaborate directly with each other in developing their BMD capabilities (Park, 2018).

The United States provides the JSDF with sensor data and vice versa. The earliest detection asset in the Japanese IAMD system is American early warning satellites, which are capable of detecting ballistic missiles as soon as they launch and letting other sensors know that a threat is coming (Japan Ministry of Defense, 2024). In addition, the US shares X band radar data with the JSDF, increasing their sensor capabilities.

The most obvious US contribution to Japanese BMD is the deployment of American Patriot missile batteries and Aegis warships to Japan. American Patriot systems defend the United States

Air Force's Kadena air base (Reeves, 2024) while Aegis equipped destroyers and cruisers are deployed to defend US Navy assets and aircraft carriers based at Commander Fleet Activities Yokosuka and the surrounding oceans (Park, 2018). These assets provide similar capabilities to the JSDF's own Aegis and Patriot assets (O'Rourke, 2025).

The United States also works very closely with Japan in the co-development of missile systems for ballistic missile defense. The SM-3 ABM has seen significant co-development and improvements through this process (Boese, 2015), and the next generation Glide Phase Interceptor is a joint US-Japan project that will see co-production once finished (Japan Ministry of Defense, n.d.). This is in addition to Japan producing Patriot missiles, having even sold Japanese produced missiles to the United States in late 2023 (Oi, 2023).
In addition to deployed systems, the United States, Japan, and South Korea have carried out trilateral exercises aimed at improving their ability to cooperate and integrate in ballistic missile defense. Japan and South Korea have also agreed to share data on North Korean missile threats and launches along with a full General Security of Military Information Agreement. Such actions would allow for faster and more open transfer of military information, creating quicker and more effective responses. These events highlight a general trend towards higher greater military cooperation in the Pacific (Narushige, 2023).

**Counterstrike Component**

A new and emerging addition to the Japanese IAMD program is a counterstrike capability, or the ability to attack military installations inside of nations that could fire missiles at the Japanese islands as a deterrence and retaliation method, supplementing traditional missile defense (Narushige, 2023). After the end of the Second World War, Japan was forbidden from possessing offensive weaponry, and through the 20th century, lacked any capability to effectively strike beyond its borders. but In recent years, debate in Japan on the meaning and interpretation of offensive weapons, along with a clear need to be able to strike back in the event of an attack, has led to a new focus on the acquisition and deployment of stand-off weapons capable of striking mainland Asia (Japan Ministry of Defense, n.d.).

The centerpiece of this new counter strike program is the American-made Tomahawk land attack cruise missile, a long-range land attack cruise missile with maritime strike variants. The JSDF will acquire the Block IV and V tomahawk land attack cruise missiles (Japan Ministry of Defense, 2024). These weapons will be fired from Japanese surface vessels, including their Aegis destroyers. The Tomahawk missile is capable of striking targets at ranges well over one thousand kilometers and a warhead of 454-kilogram warhead (*Tomahawk*, 2024). Japan will purchase as many as 400 Tomahawk missiles; delivery of the first missiles is expected sometime in 2025 (Dzirhan Mahadzir, 2024). The Tomahawk missile will provide the JSDF with a land attack capability that it has historically never had. These battle-proven weapons give the JSDF a

real ability to strike at important targets deep into mainland Asia, helping to provide a level of deterrence to any possible attack.

In addition to the Tomahawk, Japan plans to acquire two types of air launched cruise missiles: the American Joint Air-to-Surface Standoff Missile (JASSM) and Norwegian-American Joint Strike Missile (JSM). These are both long range low observability air launched cruise missiles that can be carried and fired by tactical combat aircraft. The JASSM is capable of striking targets at ranges between 370 and 1600 kilometers depending on the variant (*JASSM / JASSM ER*, 2024). Japan plans for this system to be carried by the JASDF's fleet of F-15 aircraft (Japan Ministry of Defense, 2024). The JSM is a smaller weapon that can reach over 275 kilometers and fits into the internal weapons bay of an F-35, allowing the aircraft to carry out standoff strikes while maintaining a stealth configuration (KONGSBERG, n.d.). The JSDF plans to integrate the JSM into its F-35A fleet (Japan Ministry of Defense, 2024). The JASSM is a system with two decades of service and combat use; the JSM has yet to enter service but has been ordered by several nations.

In addition to acquiring foreign missiles for counter strike capabilities, the JSDF is also investing in its own indigenous systems in the form of an improved version Type-12 anti-ship missile (Japan Ministry of Defense, 2024). The Type 12 is one of several Japanese anti-ship missiles, and it is this system that will be receiving upgrades under IAMD in the future. The JSDF plans to deploy the improved Type 12 from ground launchers, aircraft, and surface ships. The improved Type 12 missile will provide the JSDF with an improved anti-ship capabilities, and along with other in-service anti-ship missiles, all the JSDF will be able to effectively strike against any possible surface-based threats (Schulenburg, 2025).

The JSDF will also invest in another new development: hypersonic weapons. The JSDF has begun research on the development of a Hypersonic Glide Vehicle to add to the counter strike capabilities of IAMD and to keep up with the advances of the Chinese. JSDF hypersonics are still in the early phase of development, and as of yet no concrete system has been developed (Japan Ministry of Defense , 2024).

**Conclusion**

Recent conflicts prove that ballistic missile defense is becoming a matter of necessity, and the structure of the JSDF has come to reflect this new reality. Over the course of the 21st century, Japan has built up a robust ballistic missile defense and response system in IAMD, with plans to continue this development to counter emerging threats and provide a strong defensive system. The JSDF is becoming increasingly capable at defeating and responding to possible missile attacks; it plans to continue prioritizing this aspect of national defense as its neighbors evolve their own offensive systems.

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# Strategic Ambiguity in the QUAD: How Divergent Threat Perceptions Weaken Indo-Pacific Deterrence

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**Abstract**

The Quadrilateral Security Dialogue (QUAD), comprising the United States, India, Japan, and Australia, is frequently described as a cornerstone of Indo-Pacific security, signaling democratic alignment against growing Chinese assertiveness. However, this paper argues that such framing obscures a core structural reality: the QUAD's refusal to formalize into a security alliance is not the result of strategic indecision, but a deliberate compromise shaped by divergent national threat perceptions and domestic constraints. While the rhetoric of a "free and open Indo-Pacific" remains consistent, each member state continues to prioritize distinct regional concerns– India along its Himalayan border, Japan in the East China Sea, the United States in the Taiwan Strait, and Australia in the South Pacific. Unless members align more closely on core threats, the QUAD will remain a flexible platform for cooperation, but not a reliable security mechanism. This paper contends that strategic ambiguity is both the condition for the QUAD's continued cooperation and the principal reason it cannot serve as a unified deterrent. Through case studies, including India's bilateral response to the Galwan Valley clash, Japan's legally constrained maritime posture, the United States' evolving Taiwan policy, and Australia's balancing act between Australia, United Kingdom and the United States (AUKUS) and trade exposure, this analysis shows that the very flexibility that makes the QUAD inclusive also limits its strategic effectiveness.

## Introduction

The Quadrilateral Security Dialogue (QUAD), comprising the United States, India, Japan, and Australia, was initiated in 2007 by Japanese Prime Minister Shinzo Abe, with support from Australian Prime Minister John Howard, Indian Prime Minister Manmohan Singh, and U.S. Vice President Dick Cheney. Since then, it has regained prominence as a key strategic forum in the Indo-Pacific relations. Championed as a grouping of "like-minded democracies," the QUAD has conducted high-level summits, coordinated joint naval exercises, and issued repeated statements in support of a "free and open Indo-Pacific" (U.S. Department of State, 2019). Yet, despite this rhetorical alignment, the QUAD continues to lack formal institutional

structure, mutual defense obligations, or clear mechanisms for coordinating crisis responses. This paper argues that this absence of cohesion is not merely the result of slow institutional evolution– it reflects deep and unresolved divergences in how each member perceives and responds to the China challenge.

Each member of the QUAD has acted decisively in response to Chinese assertiveness, but only on its own terms, and in defense of its own priorities. In 2020, following the deadly Galwan Valley clash, India responded bilaterally through military and channels while avoiding multilateral escalation or QUAD coordination (Kaura, 2020). Japan has increased its defense capabilities in response to China's persistent maritime incursions near the disputed Senkaku Islands, but its actions are constrained by constitutional pacifism and the domestic limits of its security doctrine (Ministry of Defense, 2024). The United States has adopted increasingly explicit commitments to defend Taiwan in the event of a Chinese invasion, a position not echoed by other QUAD states (Mitra, 2023). Meanwhile, Australia's focus is centered on countering Chinese influence in the South Pacific, especially after the 2022 China–Solomon Islands security pact triggered fears of regional military encroachment.

These national responses illustrate a key contradiction: while the QUAD offers a platform for strategic dialogue, its members confront Beijing separately, not collectively. The lack of unified crisis planning, threat prioritization, or security commitments limits the QUAD's capacity to project deterrence as a bloc. This paper contends that the QUAD's strategic ambiguity, while useful for preserving flexibility, ultimately reflects structural divisions that weaken its strategic utility. Through comparative case studies of each member's China policy, this paper demonstrates how divergent threat perceptions have prevented the QUAD from evolving into a credible collective security framework.

**Case Study I – India: Galwan Valley Clash and Strategic Autonomy**

The June 2020 Galwan Valley clash between Indian and Chinese troops marked a critical turning point in the bilateral relationship– resulting in the deaths of 20 Indian soldiers was the first such fatalities along the Line of Actual Control (LAC) in over four decades (Kaura, 2020). Despite the scale of the incident, India chose to manage the crisis bilaterally, pursuing high-level military talks and diplomatic engagement with Beijing. Notably, India did not call upon the QUAD for support, nor did it seek coordinated action from its partners (Ministry of External Affairs, 2020).

This restraint reflected India's long-standing doctrine of strategic autonomy— a principle rooted in its post-independence foreign policy. Strategic autonomy emphasizes independent decision-making, non-alignment, and a deliberate avoidance of formal alliances that might constrain India's ability to act in its own interest (Mitra, 2023). This doctrine continues to guide India's security posture toward China, helping it preserve flexibility while navigating relationships with major powers like the United States, Russia, and China.

Following Galwan, India imposed a series of economic measures targeting Chinese interests, banning over 200 Chinese apps, increasing investment scrutiny, and accelerating domestic manufacturing under the "Atmanirbhar Bharat" (self-reliant India) initiative. Militarily, India ramped up infrastructure development along the LAC and repositioned troops to forward areas.

India has followed a similar logic in other sensitive contexts. For instance, it independently handled renewed skirmishes in Arunachal Pradesh's Tawang sector in 2021 and 2022, again avoiding multilateral frameworks like the QUAD (Center for a New American Security, 2023). In Taiwan, India has taken a neutral stance, declining to support joint statements or military signaling in the Taiwan Strait despite U.S. efforts to build a regional coalition. Similarly, India has refrained from deep involvement in the South China Sea, maintaining only a symbolic presence in freedom of navigation exercises.

These decisions are not signs of disengagement from the QUAD, but rather evidence that India values it as a flexible strategic forum, not as a binding security alliance. From India's perspective, the QUAD's informality is what makes participation feasible. Yet, this same informality, while politically necessary for India, limits the QUAD's ability to act as a credible deterrent force when rapid or collective military action is required.

**Case Study II – Japan: Maritime Security and Constitutional Constraints**

Among QUAD members, Japan faces some of the most immediate and sustained maritime pressure from China. At the center of this tension are the disputed Senkaku Islands (known as Diaoyu in China), administered by Japan but claimed by Beijing. Chinese coast guard and maritime militia vessels have regularly entered Japan's contiguous zone and territorial waters, setting new records for frequency and duration. In 2024, Chinese vessels were present around the Senkakus for 353 days, an unprecedented display of persistent grey-zone pressure (South China Morning Post, 2022).

Japan’s responses have been increasingly assertive, but they remain framed by the enduring legacy of Article 9 of its postwar constitution, which renounces war as a sovereign right and prohibits the maintenance of offensive military forces. While Japan has gradually reinterpreted Article 9 to expand its defense capabilities– including acquiring counterstrike weapons and significantly increasing its defense budget in 2022 and 2023– it still operates within a legal and political environment that favors caution over escalation (Ministry of Defense, 2024).

Unlike India, however, Japan maintains a formal security alliance with the United States. The U.S.-Japan Mutual Security Treaty commits both nations to consult and act in response to threats to Japanese territory. This alliance provides Japan with extended deterrence, particularly nuclear deterrence, and enables close operational coordination with U.S. forces in the region. However, Japan has shown hesitance in matching U.S. rhetoric on flashpoints like Taiwan, despite sharing deep concerns over regional stability. While Prime Minister Fumio Kishida has stated that a Taiwan contingency could be “an emergency for Japan,” Tokyo has stopped short of committing to military involvement in the event of a conflict (Center for Strategic and International Studies [CSIS], 2020).

Japan's caution is evident in other instances as well. In 2022, after China’s large-scale missile launches following U.S. House Speaker Nancy Pelosi’s visit to Taiwan, some of which landed in Japan’s Exclusive Economic Zone, Tokyo issued a strong diplomatic protest but avoided any military escalation (Council on Foreign Relations, 2022). Similarly, while Japan has joined freedom of navigation operations (FONOPs) and QUAD naval exercises, these are often framed as exercises in interoperability, not as commitments to confrontation. Domestically, public support for assertive military action remains mixed, even as concerns about China continue to rise. Efforts by the ruling Liberal Democratic Party to revise Article 9 of the constitution have encountered significant resistance—both within the parliament and among the general public.

Thus, while Japan is arguably the QUAD member most institutionally tied to the U.S. security architecture, its domestic legal constraints, historical pacifism, and maritime focus set it apart from others like the United States and Australia. As a result, Tokyo supports the QUAD’s goals, but cautiously, contributing to the group’s strategic ambiguity rather than resolving it.

**Case Study III – United States: Strategic Leadership and Ambiguity in the Indo-Pacific**

Since the QUAD's revival in 2017, the United States has actively participated in summits and ministerial meetings, repeatedly emphasizing its commitment to a "free and open Indo-Pacific" (CSIS, 2021). While the U.S. has long positioned itself as a leading voice in the QUAD, its ability to unify the group remains challenged by diverging threat perceptions and political constraints among member states.

Under President Trump's return to office in 2025, the U.S. continues to engage with the QUAD but has adopted a more transactional and unpredictable foreign policy stance. A central flashpoint in this strategy is Taiwan. While adhering to the "One China" policy, the U.S. maintains a longstanding approach of strategic ambiguity on whether it would defend Taiwan militarily. (Economic Times, 2025).

Moreover, in April 2025, President Trump imposed a 32% tariff on Taiwanese imports, citing trade imbalances and national security risks, an action that surprised Taipei (South China Morning Post, 2025). These tariffs were levied separately from those targeting Chinese goods, a move that many analysts saw as undermining the coherence of the United States' adherence to the "One China" policy. By treating Taiwan as a distinct economic actor for punitive trade purposes, where the U.S. economically recognizes Taiwan while diplomatically claiming neutrality. Despite these tensions, a bipartisan delegation of U.S. lawmakers visited Taiwan shortly afterward to reaffirm support for its security and democracy, highlighting the contradictions (AP News, 2025).

While Washington has pushed for a firmer collective QUAD stance toward Beijing, its partners remain cautious. India emphasizes strategic autonomy, Japan faces constitutional limitations on military action, and Australia is wary of overreach. These divergences, particularly around sensitive issues like Taiwan, continue to hamper the QUAD's transformation into a cohesive security alliance (RAND, 2024).

**Case IV- Australia: Strategic Engagement and Constraints within the QUAD**

Australia's participation in the QUAD reflects its commitment to a "free and open Indo-Pacific," but its approach to collective security, especially regarding China and Taiwan, reveals caution. While Australia has deepened defense ties with the United States through AUKUS

(Australia–United Kingdom–United States), it remains hesitant to be drawn into a regional military crisis, particularly over Taiwan.

A core reason for this caution lies in Australia's difficult bilateral relationship with China, which remains one of its largest trading partners. In recent years, China has used economic coercion as a tool of pressure, imposing unofficial trade bans and restrictions on Australian exports like barley, coal, beef, and wine after Canberra called for an independent inquiry into the origins of COVID-19 in 2020 (Herscovitch, 2021). While some trade restrictions have since eased, the episode exposed the vulnerability of Australia's economy to Chinese retaliation and continues to shape its risk-averse foreign policy calculus (Lowy Institute, 2022).

Australia's 2023 Defence Strategic Review emphasized strengthening self-reliance and long-range strike capabilities but stopped short of committing to regional contingencies like Taiwan (Department of Defence, 2023). Even in response to China's recent PLA (People's Liberation Army) exercises around Taiwan, Australia condemned the destabilizing behavior but avoided making any explicit defense commitments,a signal of its careful diplomatic line (Department of Foreign Affairs and Trade, 2025).

Its role in AUKUS—particularly the planned acquisition of nuclear-powered submarines—has raised questions domestically and internationally about Australia's long-term strategic posture. Some U.S. officials have reportedly expressed concern about Australia's willingness to use those assets in a Taiwan contingency, further underscoring the disconnect between defense planning and alliance expectations (Reuters, 2025).

Despite these limitations, Australia remains an active QUAD participant in areas like maritime domain awareness, supply chain resilience, and cyber cooperation (Australian Strategic Policy Institute, 2025) Australia's role in the QUAD reflects a deliberate balancing act: aligning with democratic partners to counter coercive behavior, while carefully managing its economic exposure and preserving strategic autonomy. This posture reinforces the central argument of this paper that divergent threat perceptions and national constraints limit the QUAD's ability to function as a unified deterrent bloc.

## Conclusions

The QUAD has often been promoted, particularly by the United States, as a key pillar of deterrence in the Indo-Pacific. Through joint military exercises like Malabar, maritime information-sharing, and high-level strategic coordination, QUAD has projected the image of a unified front committed to upholding a "free and open Indo-Pacific" (U.S. Department of State, 2019; White House, 2022). But as this paper has shown, however, beneath the surface, the QUAD operates not as a traditional alliance but as a coalition held together by strategic ambiguity— ambiguity that is not accidental, but foundational.

Each member of the QUAD opposes Chinese coercion in its own way. India emphasizes strategic autonomy and avoids alliance entanglements, even after the 2020 Galwan Valley clash (Kaura, 2020). Japan, while gradually expanding its defense capabilities, remains constrained by constitutional limits and domestic pacifism (Ministry of Defense, 2024). Australia balances growing defense cooperation through AUKUS with its economic ties to China, and the United States, while pushing for collective deterrence, has sometimes sent mixed messages. (South China Morning Post, 2025; AP News, 2025).

Despite these differences, the QUAD persists because its informal and flexible structure makes participation possible. Without this ambiguity, without space for national divergence there likely would be no QUAD at all. Its value lies in the areas where alignment is already feasible (Australian Strategic Policy Institute, 2023).

Still, the gap between strategic rhetoric and coordinated action remains a critical limitation. The QUAD may speak with one voice in communiqués, but it responds to crises individually, shaped by domestic politics, national constraints, and differing red lines. What makes it viable for countries like India also makes it unreliable as a deterrent. Ambiguity is both its glue and its ceiling.

Unless the QUAD can reconcile these internal tensions and build clearer alignment on core threats, especially around crisis scenarios like Taiwan, it will remain what it is today: a powerful signal of partnership, but not yet a reliable tool of deterrence.

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