

THE MISSED OPPORTUNITY OF THE NUCLEAR DEAL WITH IRAN

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For years, Israel and Iran have continued a kind of silent war supported until now by indirect attacks on the interests and allies of both parties. But after the reciprocal missile attacks between Iran and Israel last April aimed at their own territories, there is a real risk of an escalation of the crisis to regional dimensions. In this new context, it is also necessary to understand to what extent the nuclear deal signed with Iran could still play a relevant role contributing to alleviate the current crisis or it is dead.

The Iran's nuclear deal, formally called Joint Comprehensive Plan of Action (JCPOA), was signed in Vienna on 14 July 2015 between Iran, on one side, and the five permanent members of the UN Security Council (China, France, Russia, UK and US) plus the EU and Germany, on the other. It includes reciprocal commitments regarding the lifting of all UN, multilateral and national sanctions together with limitations in Iran's military nuclear programme, which is conceived by Iran to assure its territorial sovereignty (recalling the previous war with Iraq) and the regime's survival (through elimination of sanctions).



At the time, JCPOA was hailed internationally as a win-win agreement and a great diplomatic success. The objective of the international community to limit the capabilities of Iran's military nuclear programme reinforcing security in the region was combined with the Iranian government's need to get rid of international sanctions that suffocated its economy and to open its young and educated society to the world. About two thirds of the Iranian population had been born after the 1979 revolution and the country's

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potential and its human capital were indeed key elements in favour of that agreement. The signing of the JCPOA thus ushered into a period of optimism and economic opportunities. During the first months after the agreement was signed, the Iranian GDP experienced a rapid rise and a wave of prospects and joint ventures flooded the country. There were also expectations that the long-term character of the deal would facilitate further future agreements in different areas.

The concrete actions agreed under the JCPOA covered the two proliferation routes of Uranium enrichment and Plutonium processing². The main ones concerned Uranium enrichment and consisted in: a) reduction of enrichment capacity to one-third in the number of gas centrifuges at the Natanz enrichment plant; b) limitation of the enrichment level up to 3.67% at the same Natanz plant; c) conversion of the Fordow enrichment plant into a nuclear physics and technology centre; d) limitation of the Iranian stockpile of up to 3.67% enriched Uranium hexafluoride to 300 kg; and e) use of the Iranian stockpile of medium-enriched (5-20%) Uranium-235 for fabrication of nuclear fuel for the Tehran Research Reactor. Other concrete actions related to Plutonium were linked to: a) the redesign and rebuilding of the Iranian Arak IR-40 reactor to enable the use as reactor fuel of Uranium-235 enriched up to 3.67% to produce radioisotopes for medical and industrial uses, instead of U-238 to produce Plutonium; b) the availability of the excess of heavy water for export to international markets; and c) the no engagement of Iran in fuel reprocessing, except for specific activities exclusively aimed at the production of medical and industrial radioisotopes. Many of those actions included specific technical involvements of JCPOA signatories.

The JCPOA unravelling

The International Atomic Energy Agency (IAEA)³, in charge of verifying the fulfilment of all nuclear actions, stated in March 2018 that Iran was implementing its JCPOA commitments. However, two months later, the Trump Administration unilaterally withdrew the United States from the JCPOA and imposed new sanctions with a global scope applying to all countries and companies doing trade and business with Iran, cutting the country off the international financial system and rendering null the economic provisions of the JCPOA.

That move was welcomed mainly by Israel and Saudi Arabia, justifying their opposition on the non-inclusion of ballistic missiles in the deal. However, the US withdrawal from the JCPOA was widely rejected by the international community and by two thirds of the US public opinion according to CNN polls. It was also considered a strategic mistake freeing Iran of the limitations to build up its ability to fabricate nuclear bomb material. In a joint statement, France, Germany and the UK tried to rescue the deal stating that the UN Security Council resolution endorsing the nuclear deal remained the "binding

² For a background on Iran's nuclear programmes see the Annex at the end of the article.

³ The IAEA is an autonomous agency of United Nations created in 1957. Following its 2002-03 inspections of non-existent weapons of mass destruction in Iraq, the Nobel Peace Prize was awarded in 2005 to IAEA "for their efforts to prevent nuclear energy from being used for military purposes and to ensure that nuclear energy for peaceful purposes is used in the safest possible way". Its nuclear proliferation safeguards and cooperation programmes on health and industrial applications with many countries are widely recognised, including its monitoring of North Korea's nuclear weapons development.

international legal framework for the resolution of the dispute". China and Russia also criticized the withdrawal, while the European Commission declared the US sanctions against Iran illegal in the EU and banned European companies and citizens from complying with them. Nonetheless, the JCPOA was mortally wounded despite being formally supported by the other signatories, agreed JCPOA actions were not implemented, the military nuclear programme was not reversed and Iran continued to enrich Uranium-235.

The impact on Iran's economy, with giant commercial contracts as those with Boeing and Airbus cancelled, was huge. And the political impact was also decisive. During the 2021 electoral campaign, the then presidential candidate, Ebrahim Raisi, attacked those Iranian actors who had negotiated the deal stating that the outgoing reformist President Hassan Rouhani (2013-2021) had sold the country and that his Foreign Minister, Mohammad Javad Zarif, should be indicted on treason. Nevertheless, interactions between Iran and the IAEA on a possible revival of the deal started in 2021 with the Biden administration, and several negotiation talks took place during 2022. Even though Iran referred to the possibility of withdrawing from the Nuclear Non-Proliferation Treaty and abandoning the Iran-IAEA Safeguards Agreement (complete exclusion of inspectors), during the visit of the IAEA Director-General Rafael Grossi to Teheran in March 2023, Iran confirmed its readiness to continue its cooperation providing further information, addressing outstanding safeguards issues and allowing the implementation of further verification and monitoring activities. According to US Secretary of State Antony Blinken, the JCPOA's future depends mainly on the economic benefit the deal will give to Iran.

Improbable JCPOA preservation under a new context of crisis

The implementation of the above-mentioned JCPOA actions would contribute to the security and stability of the region, however several attempts to revive that deal failed. A recent one occurred at the IAEA Governing Board of June 2024, in which China, Russia and Iran proposed unsuccessfully to recover a draft agreement circulated by the EU High Representative Josep Borrell already in August 2022 aimed at reviving the JCPOA. The latest context of geopolitical tensions plays against it. On one hand, the Iranian support to Russia in the war in Ukraine results as an obstacle contaminating a potential consensus. On the other, the reciprocal missile attacks between Iran and Israel on April 2024 that opened a new chapter in their interactions. Even though the missile exchanges did not affect Iranian nuclear military capabilities, those facilities remain a tempting target for Israel. Specially knowing that the Iraqi nuclear reactor Osirak was already destroyed by Israel in 1981. Following the latest Iran's strikes on Israel, the former US National Security advisor, John Bolton, considered that a crucial moment has come to target and dismantle those Iran's capabilities⁴. The coming US elections next November may also change the general context taking into account that it was the previous Trump administration that derailed the agreement.

Moreover, there is also a change of trend among Iranian public opinion. Polls completed in May 2024 and based on more than two thousand citizens' interviews, suggested a

⁴ <https://m.youtube.com/watch?v=9OYKd1reSPc>

growing support from 67% to 71%, to the statement “Iran should possess nuclear weapons”, from which the specific answer ‘strongly agreeing’ increased from 40% to 48%⁵. That raise is, partly, caused by the JCPOA failure and the intensification of sanctions. In fact, Iran has nearly all the necessary technological capacity to build a nuclear weapon, also having at least ten thousand active centrifuges enriching Uranium-235. It is considered that enrichment levels of 90% achieving weapons-grade Uranium could be reached fast.

After the death of President Raisi in a helicopter crash, the called reformist Masoud Pezeshkian, supported by Rohani and Zarif, the main actors of the nuclear deal, was elected on 5 July 2024 as new Iranian president. He was congratulated notably by Saudi Arabia under the framework of their new diplomatic relations reestablished in 2023. In line with Pezeshkian’s electoral campaign, it is expected that Iran will pursue a policy mainly aimed to eliminate international sanctions instead of accelerating the Uranium enrichment process towards achieving weapons-grade levels, as the so-called North Korean approach has done withdrawing from the Non-Proliferation Treaty. However, the preservation of JCPOA is not possible in the present context.

The present escalation initiated by the Israel-Hamas confrontation with the resulting ordeal of the population of Gaza, and also widened in Lebanon, Yemen and Syria, makes the regional context extremely unpredictable. An extended war involving Iran will certainly destabilise the whole Gulf and Middle East regions representing a huge challenge for the international community, including in nuclear security terms.

ANNEX: Background on Iran’s nuclear programmes

Regarding nuclear proliferation, the main Iranian military nuclear facilities were and continue to be focused mainly on the enrichment of Uranium and also in the production of Plutonium. In this regard, Iran has two underground enrichment plants, the underground Fordow and the partially underground Natanz. The enrichment of natural Uranium is performed through isotope separation aimed at increasing the percentage of the isotope Uranium-235 that is fissile, i.e. U-235 can produce nuclear reactions for various purposes depending on the level of enrichment. Certainly, enriched U-235 of about 3-4% is used as fuel in nuclear power plants for the generation of electricity and heat, while enriched U-235 of about 20% is used as fuel in research reactors typically for producing medical and industrial radioisotopes and for developing advanced materials. Finally, an enriched U-235 over 90% is weapons-grade Uranium used for production of nuclear weaponries. On the Plutonium issue, Iran has the Arak IR-40 (presently denominated Khondab) heavy water research reactor, which can be also used to produce fissile isotope Plutonium-239 through neutron capture by Uranium-238 isotopes and subsequent reprocessing. Plutonium is considered weapons-grade when it contains over 93% of the Plutonium-239 isotope.

⁵ <https://thebulletin.org/2024/06/a-majority-of-iranians-now-favor-possessing-nuclear-weapons-their-leaders-take-note/>

Furthermore, Iran has two main nuclear technology centres and one nuclear power plant. Since its opening in 1984 with Chinese assistance, the Isfahan Nuclear Technology Center (INTC) is the largest nuclear research complex operating three research reactors, all supplied by China, as well as a Uranium conversion facility, and plants for fuel production and zirconium cladding. Moreover, the Tehran research reactor (TRR), in operation since 1967 with US assistance, was converted in 1988 with Argentinian assistance following the Carter non-proliferation policy to operate with low-enriched Uranium of 19,75% from the previous highly enriched Uranium of 93%. In 2011 the Bushehr nuclear power plant was put into operation for electricity production and desalinization, based on the Russian rebuilding of one of the two reactors constructed by the German Kraftwerk Union and damaged by Iraqi air strikes during the 1980-1988 Iraq-Iran war. Two new Russian-designed VVER-1000 reactors are presently under construction in the same Bushehr site.