

Nuclear Proliferation in the Middle East. By Leheb Wahab *

Introduction: With the focus of the international community **confined** to a great degree to Iran's nuclear capability, a trend has emerged in the MENA region with more and more countries vying for nuclear technology albeit for peaceful purposes, primarily as a mean to produce electricity preserving its hydrocarbon industry, i.e., the oil gas sector and maximizing its return from exporting the two commodities. This development is seen as a counter balance to the threat of Iran nuclear capability. An interesting point worth pondering ,however, is that all the Middle Eastern Countries, Iran included (together with Turkey) are all signatories to the Non-Proliferation Treaty (NPT) and thus abide by the rules and regulations set by the International Atomic Energy Agency (IAEA) , with the exception of Israel, that has a well-developed nuclear programme, with more than 400 nuclear warheads at Dimona facility in the Negev desert.

The Arab Countries (1)

High on the agenda of the major superpowers i.e the US & the EU Countries is stopping Iran from obtaining the ability to build nuclear weapons, through measures that include sweeping sanctions, restricting Iran financial transactions. The EU has also adopted sanctions on Iran oil imports that came into effect last July. An equally worrisome development is that the Iranian drive to obtain a nuclear bomb has stimulated a regional race for nuclear technology, to counter the perceived threat from a nuclear Iran.

At least twelve other Middle Eastern countries have either announced plans to explore atomic energy or have signed nuclear cooperation agreements: Saudi Arabia, Algeria, Egypt, UAE, Jordan, Morocco, Tunisia, Turkey, Syria, Kuwait, Qatar, and Oman. Each of these countries, have explicitly stated that they are only interested in peaceful uses of nuclear technology. **(FOR FURTHER DETAILS, SEE ANNEX No.1).**

The fear is now of a domino effect with these countries following the Iranian example, and working toward building a nuclear bomb to protect themselves in any future nuclear arms race.

These Middle East nations are increasingly apprehensive about the threat of a nuclear Iran and the failure of the international community to take decisive actions to prevent Tehran from achieving its nuclear ambitions.

Iran Stand-off with the West (2)

One of the ironies of a nuclear-weapon-free zone for the Middle East, is that it was first proposed by Iran in 1974. Iran’s last reigning monarch, Shah Mohammad Reza Pahlavi, advocated the idea of such a zone. The Islamic Republic of Iran, which replaced the monarchy in 1979, is believed to be pursuing a nuclear weapons capability, despite intense international diplomatic and economic pressure.

Intensified negotiations between Iran and the group of P 5+1 (the five permanent members at the UN Security Council, plus Germany) to dissuade Iran from further enhancing its enrichment of uranium failed to achieve conclusive results, whereas the latest IAEA report was quite scathing. It held the Islamic Republic responsible for the break-up in talks due to the latter intransigence. In particular its failure to open its reactors to IAEA inspection. **(See Annex No. 2)**

MENA Nuclear Power Progress

Country	Planned Cap	Plants	Comments
Algeria	1.0gw	1	Targeting 2025 start-up of first plant, potentially more to follow.
Egypt	4.0gw	4	Russia invited to help build first 1gw plant and develop uranium deposits.
Iran	20gw	20	1gw Bushehr plant started Sep '11, currently shut. Building 40mw Arak research plant and 360mw Darquain plant. Plans two new 1gw Bushehr plants.
Jordan	1.0gw	1	First plant intended to start up in 2020, second in 2025.
S Arabia	18gw	16	Plants scheduled to be brought into operation during 2022-32.

Turkey	9.2gw	8	Plans four 1.2gw plants at Akkuyu, four 1.1gw plants at Sinop. Akkuyu-1 start-up 2020, Sinop-1 2023.
UAE	5.6gw	4	First 1.4gw plant u/c at Barakah. One Plant due on-line each year during 2017-20.

Source: Mees 31 May, 2013.

Iran's refusal to cooperate with the international community led to severe sanctions by the US & the EU which has started to bite as demonstrated by the sharp drop in the value of the Riyal. Iran has so far denied the IAEA access to sensitive military sites where Iran is accused of conducting nuclear weapons related experiments, notably the Parchin facility. Neither has Iran stood by the Agency request of freezing enrichment of Uranium at 20 percent nor has it allowed for a more rigorous international inspection regime. Access has also been denied to the heavily fortified Fordow enrichment site, near the holy city of Qom.(3)

The Nightmare Scenario:

A nightmare scenario in circulation sees Israel attacking Iran nuclear reactor before the end of the year , in collusion with the United States ,with Iran retaliating in kind including the closure of the Strait of Hormus, a major oil artery accounting for 20% of global oil production and 40% of global oil maritime oil, wreaking havoc in the international oil markets. As a consequence oil prices will hike to unprecedented levels, with WTI and Brent, both breaching the 200 dollars level, hampering growth in the major developed economies already reeling under deep stagnation.(4)

How things will unfold remains to be seen. With the hawkish Netanyahu facing elections soon, all options, including a military strike, should not be ruled out. However, the election of a moderate cleric, Hassan Rouhani, as the new Iranian President, may diffuse current tensions for the time being.

It is worth noting, that attacking Iran's nuclear sites would be sheer madness, according to many observers. Much of what happens would depend largely on the climate conditions at time of the attacks. Great desert storms known as the shamal and the sharqi, would bring with it contaminated sand particles. Most ,if not all the cities in the region of the Arabian Gulf would become uninhabitable for decades to come.(5)

Lessons From The Cuban Missile Crisis: (6)

Fifty years ago, the Cuban missile crisis brought the world to the brink of nuclear disaster. During the standoff, U.S. President John F. Kennedy thought the chance of escalation to war was "between 1 in 3 and even,". The resulting war might have led to the deaths of 100 million Americans, and over 100 million Russians.

The main story line of the crisis is familiar. In October 1962, a U.S. spy plane caught the Soviet Union attempting to sneak nuclear-tipped missiles into Cuba, 90 miles off the United States' coast. Kennedy determined at the outset that this could not stand. After a week of secret deliberations with his most trusted advisers, he announced the discovery to the world and imposed a naval blockade on further shipments of armaments to Cuba. The blockade prevented additional materiel from coming in, but did nothing to stop the Soviets from operationalizing the missiles already there. And a tense second week followed during which Kennedy and Soviet Premier Nikita Khrushchev stood "eyeball to eyeball," neither side backing down.

Saturday, October 27, was the day of decision. At the last minute, the ***crisis was resolved without war, as Khrushchev accepted a final U.S. offer, pledging not to invade Cuba, in exchange for the withdrawal of the Soviet missiles.***

Lessons learned from the Cuban missile crisis, is that instead of a policy of appeasement _ a Neville Chamberlin 1938 Munich approach-talking tough via messages transmitted through diplomatic channels, the art of compromise, coupled with military threat paid huge dividends at the end of the day. [The same approach could apply to Iran stand-off with the West.](#)

Conclusion:

The paper concluded that a Middle East free of weapons of mass destruction, WMD, would enhance peace in a turbulent region.



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Source:

1. Mark Fitzpatrick, Drawing a Bright Redline, Foreign Policy, November 2012.
2. Alireza Nader, Iran and a Nuclear weapon Free Middle East, A Rand publication, 2011.
3. Hossein Mousavian, The Iranian Nuclear Dispute: Origins & Current Options, A Princeton University Newsletter, 2012.

See Also:

- Amrita Sen & Helime Croft, Iran: The Road to Nowhere Energy & Geopolitical Risk, July 2012.
4. The Economist. Israel vs Iran ,September 8th 2012.
 5. Claude Salhani, Attacking Iran;s Nuclear Sites Would be Sheer Madness, oilprice.com., 14th May 2013

SEE ALSO :Wade Stone, Good-Bye Dubai, Global Research, April 10th 2013.

6. Graham Allison, The Cuban Missile Crisis at 50, Foreign Affairs, July /August 2012.

ANNEX No. 1

Developments in Mid-East Nuclear Proliferation:

Saudi Arabia

- In **May 2008**, the U.S. and Saudi Arabia agreed to establish a nuclear cooperation relationship and Saudi Arabia joined the Proliferation Security Initiative (PSI).
- In **April 2009**, King Abdullah told US diplomat Dennis Ross, “If [Iran] get nuclear weapons, we will get nuclear weapons.”
- In **August 2009**, the Saudi minister of water and electricity announced that the kingdom was working on plans for its first nuclear power plant.
- In **July 2010**, Saudi Arabia and France announced the signing of a nuclear cooperation pact in order to develop atomic energy.
- In **February 2011**, Saudi Arabia and France signed a bilateral cooperation agreement for the development of nuclear power, policies which could lead to untold and possibly dramatic consequences”.
- In **January 2012**, King Abdullah signed an agreement with China for cooperation in the development and use of atomic energy for peaceful purposes.
- In **February 2012**, the London Times quoted a “senior Saudi official” as saying that Riyadh would launch a “twin-track nuclear weapons program” should Tehran realize its ambition of obtaining a nuclear weapon.

UAE

- In **January 2008**, UAE signed a deal with a French company to build two nuclear reactors.
- UAE signed a nuclear framework agreement with France for cooperation in the use of nuclear energy for peaceful, civilian purposes.
- UAE and U.S. signed an agreement in **April 2008** to establish peaceful nuclear energy cooperation and formalized that MOU in **January 2009**.

- In **May 2009**, President Obama approved the agreement on nuclear energy cooperation.
- The agreement with the U.S. follows the public launch of a UAE policy document outlining potential development of a domestic nuclear power plant.
- In **August 2009**, UAE joined the IAEA Convention on Nuclear Safety and the Joint Convention on the Safety of Spent Fuel Management.
- In **May 2010**, Sheikh Abdullah bin Zayed, the UAE Minister of Foreign Affairs, said they were developing nuclear technology in a "transparent, safe, secure, and peaceful" manner and outlined the UAE's policy to "develop its nuclear energy programme in a responsible manner".
- In **March 2011**, the UAE accepted a \$20 billion bid from a South Korean consortium to build four commercial nuclear power reactors, total 5.6 GWe, by 2020.
- In **June 2011**, a national opinion poll found strong support for nuclear technology development with 85% of respondents believing in the importance of nuclear energy.
- In **July 2012**, UAE began building a maiden nuclear power plant and signed an agreement with Australia for the supply of uranium.

Jordan

- In **2007**, Jordan established its Committee for Nuclear Strategy and set out a program for the development of nuclear power.
- In mid-**2008**, Jordan signed an agreement with the Atomic Energy of Canada to conduct a study on building a reactor using natural uranium fuel for power.
- In **December 2008**, Jordan signed an MOU with Korea Electric Power Corp to carry out site selection and feasibility study on nuclear power projects.
- In **November 2009**, Jordan signed an \$11.3 million agreement with Worley Parsons for the pre-construction phase of a 1000 MWe nuclear power plant.
- In **February 2011**, Jordan and Turkey signed a nuclear cooperation agreement.
- In **2012**, Jordan announced plans to start building a nuclear power plant in 2013 for operation by 2020 and a second one for operation by 2025.

- Jordan signed nuclear cooperation agreements with France, Canada, UK and Russia, in respect to both power and desalination.
- Jordan signed a nuclear cooperation agreement with China, covering uranium mining and nuclear power.
- Jordan also has cooperation agreements with South Korea, Japan, Spain, Italy, Romania, Turkey and Argentina related to infrastructure for nuclear power.

Turkey

- Early in **2006**, the port city of Sinop was chosen to host a commercial nuclear power plant.
- In **August 2006**, Turkey announced plans to have three nuclear power plants total operating by 2015. Discussions had been under way with Atomic Energy of Canada Ltd regarding two units as an initial investment.
- In **2007**, a bill concerning construction and operation of nuclear power plants and sale of their electricity was passed by parliament and subsequently approved by the President. The bill provided for the Turkish Atomic Energy Authority (TAEK) to set the criteria for building and operating the plants.
- In **February 2008**, preparatory work began to build a second nuclear power plant in Sinop.
- In **May 2008**, a civil nuclear cooperation agreement with the USA entered into force.
- In **May 2010**, Russia and Turkey signed an inter-governmental agreement to build and operate a nuclear plant, with four reactors in Akkuyu.
- In **June 2010**, a nuclear cooperation agreement with South Korea was signed to build the second Sinop plant with four nuclear reactors.
- In **2011**, the government announced intentions for three further nuclear power plants with four reactors each, all to be operational by 2030.
- In **March 2012**, a Turkish public opinion survey found a majority of 54% supporting policies that would lead Turkey to develop their own nuclear weapons.

Egypt

- In **September 2006**, Egypt announced it would revive long dormant plans to construct a nuclear energy.
- In **March 2007**, Energy and Electricity Minister Hassan Younis announced plans to construct 10 nuclear-powered "electricity-generating stations" across the country.
- Russia and Egypt signed a nuclear cooperation accord in March 2008.
- In **2009**, the Egyptian Nuclear Power Plant Authority (NPAA) and Worley Parsons Limited concluded a \$160 million contract with services to include "site and technology selection studies and carries through to design, construction management, commissioning and start-up of the 1,200 MWe nuclear power plant."
- In **2010**, Cairo formally requested nuclear energy training assistance from the Korea International Cooperation Agency
- As of **June 2011**, Egypt's transitional government was planning to invite international companies to bid for their reactor construction project at El-Dabaa.

Kuwait

- In March 2009, Kuwait setup a national nuclear energy commission, in cooperation with the IAEA, to consider the development of a nuclear technology program.
- In April 2010, it signed a nuclear cooperation agreement with France relating civil nuclear energy applications, including electricity generation, water desalination, research, agronomy, biology, earth sciences and medicine.
- In September 2010, announced intention to build 4 nuclear power reactors by 2022 but this plan was scrapped in mid-2011.
- In June 2010, Kuwait signed a Memorandum of Cooperation with the U.S. Government on nuclear safeguards and other nonproliferation topics.
- By December 2010, Kuwait had nuclear cooperation agreements with USA, Russia and Japan.

Algeria

- In January 2007, Algeria and Russia signed an agreement to investigate the establishment of a nuclear power facility.

- In June 2007, Algeria signed a nuclear cooperation accord with the USA to begin generating nuclear energy for civilian purposes.
- During 2008, Algeria signed other nuclear technology agreements with Argentina, China, and France.
- In February 2009, the government announced that it planned to build its first nuclear power plant to be operating about 2020.
- Algeria has one of the most advanced nuclear-science programs in the Arab world, and is considering the role that
- nuclear power might play in its domestic energy mix.

Morocco

- In 2007, nuclear power company Areva signed an agreement with Morocco's Office Cherifien des Phosphates (OCP) to recover uranium from phosphoric acid.
- In October 2007, Morocco signed a nuclear energy cooperation agreement with France to develop a nuclear power plant near Marrakesh.
- In January 2010, government announced plans for two nuclear reactors to start operation after 2020.
- In January 2011, the government approved plans to set up a nuclear safety agency and draft a law on nuclear security.

Qatar

- Qatar was actively involved in the GCC decision of December 2006 to pursue nuclear energy for peaceful purposes.
- In April 2008, Qatar announced a plan to build a nuclear plant.
- In May 2008, Qatar sent experts to a meeting of the IAEA in Vienna.
- In 2010, Qatar raised the possibility of a regional project for nuclear generation.

Tunisia

- In December 2006, Tunisia signed a nuclear cooperation agreement with France focused on nuclear power and desalination.
- In April 2008, the nuclear cooperation agreement with France was amplified to include the possible construction of a nuclear power plant.

Syria

- From 2001-2007, Syria is believed to have been building a gas-cooled reactor similar to the plutonium production unit at Yongbyong in North Korea (this plant was destroyed by an Israeli airstrike in 2007 and all remains were subsequently demolished by the Syrian government).
- In 2011, the Syrian Atomic Energy Commission published a proposal for a new nuclear power plant by 2020.

Oman

- In June 2009, Oman signed a nuclear cooperation agreement with Russia.
- In February 2010, a delegation of U.S. experts met with Oman's Nuclear Steering Committee regarding areas of potential future cooperation in nuclear technology.

ANNEX No. 2

Q&A: Iran nuclear issue

Iran nuclear crisis

The International Atomic Energy Agency (IAEA) has said that medium-level uranium enrichment had begun at the Fordo plant near Qom in northern Iran.

Tehran has said it plans to carry out uranium enrichment there for purely peaceful purposes. The West argues Iran is building a nuclear weapons capacity.

In November 2011 the IAEA released its latest report on Iran's nuclear programme, presenting new evidence suggesting that Iran is secretly working to obtain a nuclear weapon. Iran has dismissed the claims as fictitious.

What does the IAEA report say?

The IAEA has long expressed concern about Iran's nuclear programme, but its latest report (lays out the case in much greater detail than before.

Drawing on evidence provided by more than 10 member states as well as its own information, the IAEA said Iran had carried out activities "relevant to the development of a nuclear explosive device".

It said that some of these activities could only be used to develop nuclear weapons - though it did not say that Iran had mastered the process, nor how long it would take Iran to make a bomb.

The UN Security Council has ordered Iran to stop enrichment. Why?

Because the technology used to enrich uranium to the level needed for nuclear power can also be used to enrich it to the higher level needed for a nuclear explosion.

Iran hid an enrichment programme for 18 years, so the Security Council says that until Iran's peaceful intentions can be fully established, it should stop enrichment and other nuclear activities.

Under international law, an order from the Security Council is held to supersede rights granted by other international organizations. The Council has ordered sanctions under Article 41 of the UN Charter, which enables it to decide "what measures not involving the use of armed force are to be employed to give effect to its decisions". The Council has also called on Iran to ratify and implement an arrangement allowing more extensive inspections as a way of establishing confidence.

How does Iran justify its refusal to obey the Security Council resolutions?

Under the Nuclear Non-Proliferation Treaty (NPT), a signatory state has the right to enrich uranium to be used as fuel for civil nuclear power. Such states have to remain under inspection by the IAEA. Iran is under inspection, though not under the strictest rules allowed because it will not agree to them. Only those signatory states with nuclear weapons at the time of the treaty in 1968 are allowed to enrich to the higher level needed for a nuclear weapon.

Iran says it is simply doing what it is allowed to do under the treaty and intends to enrich only for power station fuel or other peaceful purposes. It says the UN resolutions are politically motivated.

How soon could Iran make a nuclear bomb?

This would depend on Iran taking the decision to make a nuclear device and Iran says it will not do so. But experts believe that technically it could produce enough highly enriched uranium for a bomb within a few months. A US general said in April 2010 that Iran could still take several years after that to make a device. Former CIA chief Leon Panetta said in June 2010 that it could take two years. Israel's retired intelligence Chief Meir Dagan has said it could take until 2015.

US Secretary of State Hillary Clinton said in January 2011 that sanctions had slowed down Iran's nuclear work. She also said that Iran had faced technical difficulties, possibly a reference to a computer virus said to have affected its centrifuge machinery. But in July 2011, Iran said it was

installing new, faster centrifuges to speed progress in uranium enrichment. If successful, it could shorten the time needed to stockpile material that can have civilian as well as military purposes, if processed much further.

In theory Iran could leave the NPT with three months' notice and it would then be free to do what it wanted. However, by doing that it would raise suspicions and leave itself open to attack. If, while remaining in the treaty, it enriched to nuclear weapons level or was found diverting material for a bomb in secret, it would lay itself open to the same risk.

What sanctions has the UN imposed on Iran?

The UN has imposed four sets of sanctions, in Security Council resolutions 1737, 1747, 1803 and 1929.

These seek to make it more difficult for Iran to acquire equipment, technology and finance to support its nuclear activities. They ban the sale to Iran of materiel and technology related to nuclear enrichment and heavy-water activities and ballistic missile development, restrict dealings with certain Iranian banks and individuals, stop the sale of major arms systems to Iran (Russia has cancelled the sale of an anti-aircraft missile system) and allow some inspections of air and sea cargoes.

However, they do not stop the trade in oil and gas, the major source of Iran's income.

What about additional sanctions by the US and EU?

The US brought in restrictions on trade with Iran after the taking of American hostages in 1979, which it tightened in 1995, and in 2010 additionally targeted Iranian finances, shipping and the Revolutionary Guard.

In January 2012 the US imposed sanctions on Iran's central bank and against three oil companies that trade with Iran, including China's state-run Zhuhai Zhenrong Corp. The sanctions prevent the companies from receiving US export licenses, US Export Import Bank financing or any loans over \$10m from US institutions.

Later that month European Union foreign ministers formally adopted an oil embargo against Iran. This involves an immediate ban on all new oil

contracts with Iran, while existing contracts will be honored until 1 July 2012.

How does the nuclear plant at Bushehr fit in?

This reactor was started in the 1970s under the Shah but then put on hold until recently when the Russians finished it. The Russians will provide raw fuel and take away the spent fuel, which could potentially be used to make a plutonium-based nuclear bomb.

Bushehr is technically separate from the issue of enrichment. However, the US says that because Russia is providing the fuel, Iran does not need its own enrichment programme. Iran says that the reactor shows that it does have a civil nuclear power plan and that it needs to develop enrichment to serve this in the longer term.

What about fuel for the Tehran research reactor?

There is a small research reactor in Tehran making medical isotopes, installed by the Americans many years ago. This is running low on fuel, which has previously been provided from abroad. The US, Russia and France proposed taking Iran's stock of low-enriched (3.5%) uranium out of the country and return it as higher-enriched (20%) fuel rods. The idea was to get the low-enriched stock out of Iran and prevent it from being potentially used for a nuclear device.

On 17 May 2010 it was announced in Tehran that, after talks with Turkey and Brazil, Iran had agreed to ship low-enriched uranium to Turkey. However, Iran also said it would continue to enrich other uranium to 20%. Western governments rejected the deal and said it did not solve the basic enrichment issue.

What about Iran's enrichment plant at Qom?

A new and previously secret enrichment plant being built underground near Qom was revealed in 2009. The IAEA said it should have been declared much earlier and is demanding that construction stop. Iran says it broke no rules - there is a dispute about its obligations to the IAEA - and stated that it was constructing the plant in a mountain in order to safeguard its technology from an air attack.

Iran said the plant, known as the Fordo fuel enrichment plant, would enrich uranium up to 5% and would have 3,000 centrifuges.

In June 2011 Iran said the purpose of the plant was to enrich uranium to 20%, as well as carry out research and development.

In January 2012 the IAEA confirmed that Iran had started the production of uranium enriched up to 20% at the plant.

Don't existing nuclear powers have obligations to get rid of their weapons under the NPT?

Article VI commits them to "pursue negotiations in good faith on effective measures relating to cessation of the nuclear arms race at an early date and to nuclear disarmament". The nuclear powers claim they have done this by reducing their warheads, but critics say they have not really moved towards nuclear disarmament. Critics also argue that the US and UK have broken the treaty by transferring nuclear technology from one to another. The US and UK say that this is not covered by the NPT.

Doesn't Israel have a nuclear bomb?

Yes. Israel, however, is not a party to the NPT, so is not obliged to report to it. Neither is India or Pakistan, both of which have developed nuclear weapons. North Korea has left the treaty and has announced that it has acquired a nuclear weapons capacity.

On 18 September 2009, the IAEA called on Israel to join the NPT and open its nuclear facilities to inspection. The resolution said that the IAEA "expresses concern about the Israeli nuclear capabilities, and calls upon Israel to accede to the NPT and place all its nuclear facilities under comprehensive IAEA safeguards...

Israel refuses to join the NPT or allow inspections. It is reckoned to have up to 400 warheads but refuses to confirm or deny this.