

TEN STEPS



**TOWARD A WEAPONS
OF MASS DESTRUCTION-FREE ZONE
IN THE MIDDLE EAST**


PIR CENTER

MOSCOW, 2013



This White Paper was prepared by PIR Center, a leading Russian think-tank specializing in global security. As a part of Middle East project, PIR Center, and its partner organizations from Egypt, Iran, Jordan, Saudi Arabia and UAE analyze the impact of nuclear energy on the development of Middle East countries. The study focuses on the challenges posed by nuclear programs and on opportunities for the region's development opened up by nuclear energy.

For more details, please visit the project page on the PIR Center website at: middle-east.eng.pircenter.org

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CONTENTS

2

What kind of zone does the Middle East need?

3

Obstacles along the way

4-5

Background (1958–2012)

6-7

Starting positions — 2012

8-9

Key players

10-11

Nuclear-weapon-free zones: world experience

12

Ten steps toward a WMD-free zone

13

Confidence-building

14

Nuclear tests and delivery systems

15

Draft treaty establishing a WMD-free zone

16-17

Peaceful nuclear energy cooperation

White Paper «Ten Steps toward a Weapons of Mass Destruction-Free Zone in the Middle East»

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«The Conference calls upon all States in the Middle East to take practical steps in appropriate forums aimed at making progress towards, inter alia, the establishment of an effectively verifiable Middle East zone free of weapons of mass destruction, nuclear, chemical and biological, and their delivery systems, and to refrain from taking any measures that preclude the achievement of this objective».

1995 Review and Extension Conference
of the Parties to the Treaty on the Nonproliferation
of Nuclear Weapons. Final Document

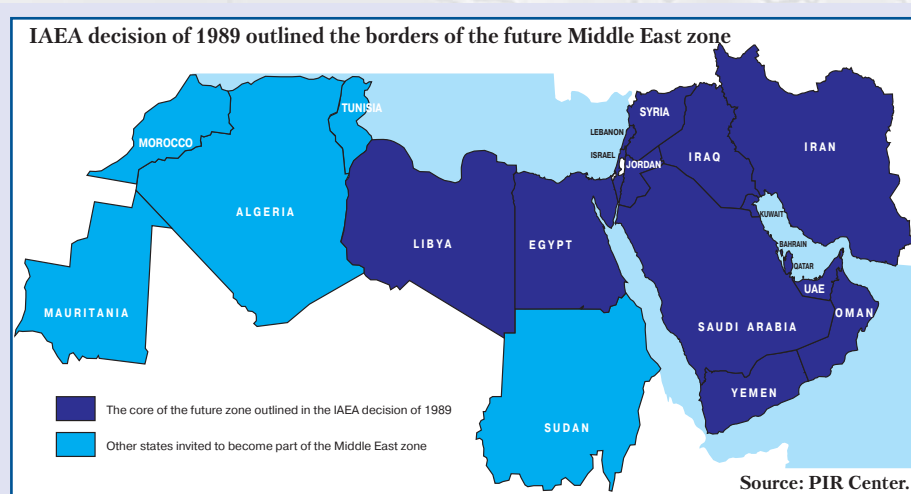
«The Conference reaffirms the importance of the Resolution on the Middle East adopted by the 1995 Review and Extension Conference and recalls the affirmation of its goals and objectives by the 2000 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons. The Conference stresses that the resolution remains valid until the goals and objectives are achieved. States parties renew their resolve to undertake, individually and collectively, all necessary measures aimed at its prompt implementation».

2010 Review Conference of the Parties to the Treaty
on the Nonproliferation of Nuclear Weapons. Final Document

«Pursuant to consistent implementation of the Russian foreign policy course [...] I hereby decree: the Ministry of Foreign Affairs of the Russian Federation, together with other federal executive bodies: [...] are instructed to support the establishment in the Middle East of a zone free of weapons of mass destruction and means of their delivery».

Russian Presidential Decree of May 7, 2012
«On measures to implement the Russian Federation's foreign policy course»

WHAT KIND OF ZONE DOES THE MIDDLE EAST NEED?



«The Secretariat could not trace any official definition of the Middle East as a region in United Nations documents or in resolutions adopted by the United Nations General Assembly. For the purpose of the present study the region has been taken as including the area extending from the Libyan Arab Jamahiriya in the west, to the Islamic Republic of Iran in the east, and from Syria in the north to the People's Democratic Republic of Yemen in the south».

Technical Study on Different Modalities of the Application of Safeguards in the Middle East, IAEA document, 1989

Various ideas for establishing a WMD-free zone in the Middle East were first voiced in the early **1960s**. Cold War confrontation between the two superpowers was compounded in the region by a tense stand-off between the State of Israel and the Arab world, as well as general instability. In such circumstances **it appeared that establishing an official nuclear-weapon-free zone in the Middle East would be in the interests of all the regional and global actors**. The subsequent establishment of NWFZs all across the globe, including almost the entire Southern Hemisphere, had demonstrated that the idea was entirely realistic, provided that it has the energetic backing of countries in the respective regions. **Every year since 1974 the UN General Assembly has passed a resolution on establishing a nuclear-weapon-free**

zone in the Middle East. Nevertheless, negotiations on establishing a WMD-free zone in the Middle East remain very far from conclusion.

The Middle East still remains a problem region in terms of nonproliferation and non-use of WMD. **Iraq has used chemical weapons** against Iran and its own Kurdish rebels. At least **four of the region's nations** (Iraq, Iran, Syria and Libya) have at some point been implicated in pursuing dual-purpose nuclear programs. Meanwhile, **Israel**, which remains outside the NPT, has a **nuclear arsenal estimated at 80 nuclear warheads** (SIPRI Yearbook 2012).

Besides, **tensions persist in the region between Israel and most of the Arab countries**, as well as Iran; several Arab countries and Iran; and within the Arab world itself. With such a profound lack of confidence, none of the Middle Eastern states are interested in the presence of WMD in the region due to the risk of those weapons being used in case of a conflict.

It is therefore obvious that the establishment of a WMD-free zone in the region would bring clear benefits to

the participating states. It would **help to avoid an arms race** (including a nuclear, chemical or biological race), which would have dire consequences for the security and the economies of the countries involved. **It would build trust between countries in the region** and establish new platforms for dialogue, which would potentially **facilitate peace process between Israel and its neighbors**.

Another thing to take into account is that establishing a WMD-free zone in the Middle East is not just a regional issue. Outside actors, including the EU and Russia, are also interested in minimizing the likelihood of a major war in the region. Finally, **the establishment of a WMD-free zone is very important for maintaining the global nonproliferation regime**.



«Establishing a zone free from weapons of mass destruction in the Middle East is inseparably linked to the regional peace process but there is also the reverse relation. The establishment of such a zone may help achieve Middle East settlement and create a more favorable atmosphere for that».

Sergey Ryabkov, Deputy Foreign Minister of the Russian Federation

It would have been impossible to adopt the Final Document of the 2010 NPT Review Conference without including some decision on the WMD-free zone in the text of that document. By the same token, **lack of progress on this issue would have a negative impact on the 2015 Review Conference**.

The establishment of a WMD-free zone in the Middle East was part of the 1995 NPT Review Conference's decision on the indefinite extension of the NPT; in many respects it is closely linked to that extension. **Lack of will to make earnest efforts to establish such a zone could push some states towards reviewing their current NPT status**.

Useful sources and links:

- Materials of the PIR Center international workshop «2012 Conference on Establishing a WMD-Free Zone in the Middle East: Looking for Constructive Solutions» middle-east2012.en.pircenter.org



OBSTACLES ALONG THE WAY

In the context of establishing a WMD-free zone on the Middle East, Israel presents the greatest difficulty. **The country has not signed the NPT**, the Comprehensive Nuclear Test Ban Treaty (CTBT), the Chemical Weapons Convention (CWC), or the Convention on the Prohibition of Biological and Toxin Weapons (BTWC). Israel also has a nuclear weapons arsenal while at the same time maintaining a policy of *nuclear ambiguity*, which makes it impossible even to discuss the country's possession of nuclear weapons. In order to join the WMD-free zone, Tel Aviv will essentially have to change its entire foreign policy paradigm.

Several Arab states (most importantly, Egypt and Syria) **have yet to sign or ratify the CWC, the BTWC, and the CTBT**, making the signing conditional on Israel's nuclear disarmament. Egypt has yet to ratify the treaty establishing a nuclear-weapon-free zone in Africa (the Pelindaba Treaty).

The Iranian nuclear program has long been raising concerns among the international community and the IAEA. **In spite of UN Security Council resolutions and sanctions imposed on the country, Tehran continues to increase its enrichment capacity and stockpiles of enriched uranium.** At the same time, Iran has an advanced peaceful nuclear energy program (including the region's first nuclear power plant at Bushehr). **Threats have been made against the Iranian nuclear infrastructure, as well as several actual cyber attacks, which have caused serious concerns among the expert community.**

De jure the Middle East remains in a state of war. Israel has signed peace treaties with Egypt and Jordan, but most of the neighboring countries are still refusing to recognize its statehood. There are also tensions between the Arab states of the Persian Gulf and Tehran, caused by political as well as religious factors.



«We must say very clearly that Arab countries and other participants have a responsibility to engage Israel and to show that this is a vehicle for engagement and not confrontation. We would like the Arabs to engage us in a genuine way, to engage us directly, not to come through problematic portals like the NPT that we don't participate in. It is not to look for the old concepts that have been there on the table for forty, fifty years, but indeed to think outside the box and think of how you actually talk directly and engage in a different way».

Jeremy Issacharoff,
Deputy Director General
for Strategic Affairs,
Ministry of Foreign Affairs of Israel

The Arab Spring has triggered a series of **revolutions in the region, which have completely transformed the political landscape that existed in the Middle East over the past several decades.** In several countries, the transition has been relatively painless. In others (such as Libya, Yemen, and Syria), it degenerated into a civil war.

In addition to stockpiles of WMD, countries in the region also have means for their delivery. Iran, Israel and Saudi Arabia have substantial arsenals of ballistic missiles, some of which can be modified to carry WMD warheads.



Israel keeps thinking that it can resolve the situation by establishing direct contact with a couple of Arab countries. The Middle East issue would be resolved if all the countries would be directly involved in this matter. This is not the issue of a couple of Arab countries just having informal contacts here and there. Now we have an opportunity of a meeting under the auspices of the UN. If you talk about other things, you jeopardize this new trend.

Ali Asghar Soltanieh,
Permanent Representative of the Islamic
Republic of Iran to the United Nations and
other International Organizations in Vienna

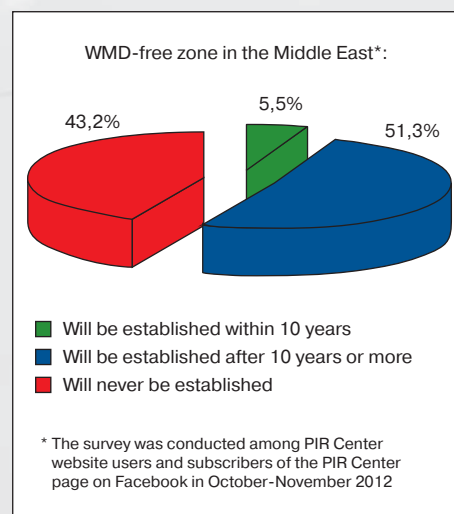
Useful sources and links:

- Nabil Fahmy, Patricia Lewis. Possible elements of an NWFZ treaty in the Middle East. In Nuclear-Weapon-Free Zones. United Nations Institute for Disarmament Research (UNIDIR), 2011



DongFeng 3 (CSS-2) ballistic missile capable of carrying a nuclear warhead. Saudi Arabia bought about 50 such missiles (conventional versions) from China in the 1980s.
Photo: Chinese military review

Finally, one of the most intractable problems is that after years of fruitless talks, **many people simply do not believe that the idea of establishing a WMD-free zone in the Middle East is realistic.**



BACKGROUND (1958–2012)

1981

Operation Opera.
Israeli fighters deliver an airstrike
against Iraqi Osirak reactor,
causing serious damage.



Iranian soldiers check their NBC suits
during the war with Iraq.
Photo: www.chemical-victims.com

1983–1984

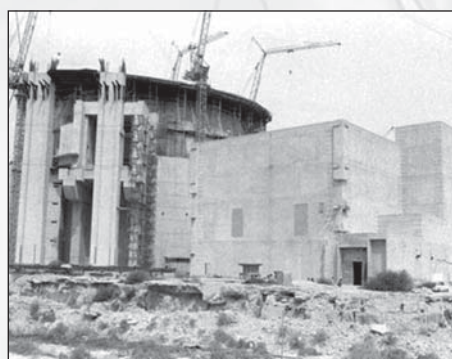
Iraq uses chemical weapons against
Iran and the Iraqi Kurds.



In 1995,
when I was
negotiating
three decisions related
to the Middle East
resolution, many of the
Arab countries in the
region were not NPT
members. Thanks to

the adoption of that resolution, by the next
NPT Review Conference in 2000 all the Arab
countries had signed the treaty, and the entire
Middle East, with the exception of Israel, was
covered by the NPT. That was a significant step
forward because the Arab countries had felt
that they now had an instrument within the
NPT that could force Israel to renounce nuclear
weapons. Tel Aviv could have disarmed either in
the context of the zone, or in the process of the
global movement towards a nuclear zero. The
main reason why the Arab states had agreed to
the indefinite extension of the NPT was that
they wanted security from nuclear weapons.
Now you are telling them that this is impossible,
and the official nuclear powers, the members
of the Middle East Quartet, are washing their
hands. The Arab countries may well respond
by saying, «In that case we are going to provide
our own security, and we don't need the NPT
for that».

*Dr. Jayantha Dhanapala,
President of the Pugwash Movement
of Scientists,
Chair of the 1995 NPT Review
and Extension Conference*



Construction of the Bushehr NPP, 1984.
Photo: Council on Foreign Relations

1984

Iraq bombs the construction site
of the Bushehr NPP during the war
with Iran. More airstrikes against
the facility are launched
in 1985–1988.

1990

Egypt proposes that the zone should
also cover chemical and biological
weapons and urges limitations
on certain types of missile weapons.

1974

Iran proposes the establishment
of a nuclear-weapon-free zone
in the Middle East. The UN GA passes
its first resolution calling
for such a zone to be established.



«In 1974,
the idea of the
zone was first
presented to the General
Assembly by Iran, then
adopted by Egypt and the
Arab states and I started
working on this issue.
Almost forty years later
we are still in the pre-negotiation phase. We have
a lot of good ideas for the creation of the zone.
The problem is that they are not implemented».

*Wael Al-Assad,
Director of Disarmament
and Multilateral Relations Department
at the League of Arab States*

1958

The Soviet Union proposes
the establishment of a peace zone free
of nuclear and missile weapons
in the Middle East.



King Hussein I of Jordan, Israeli Prime Minister Yitzhak Rabin and US President Bill Clinton at peace talks. July 1994.
Photo: IsraeliDocs

2010

The NPT Review Conference votes unanimously to hold a conference on a WMD-free zone in the Middle East in 2012.

1995

NPT Review and Extension Conference urges Middle Eastern states to establish a zone free of nuclear, chemical and biological weapons and delivery systems.

1993

Israel and Jordan declare normalization of bilateral relations, and confirm their willingness to start working on establishing a WMD-free zone in the Middle East. The joint declaration mentions the possibility of expanding the definition of WMD to include some types of conventional weapons.

1991

A working group for arms control and regional security set up at the Madrid Conference. The group, which included the delegations of Israel, Palestine and most of the Arab states, existed until 1995.



Headline in Britain's *The Sunday Times* on October 5, 1986

Useful sources and links:

- Ivan Trushkin. WMD free zone in the Middle East: from ideals to reality. *Security Index* № 4 (101) Fall 2011.
- Roland Timerbaev. How realistic is the establishment of a nuclear-weapon-free zone in the Middle East? *Yademy Kontrol*, № 12, December 1995.
- Further details about the Israeli nuclear program are available at PIR Center website: israel.nuclearnine.pircenter.org (in Russian)
- Further details about the Iranian nuclear program are available at PIR Center website: iran.eng.pircenter.org

1986

Mordechai Vanunu, former technician at the Israeli nuclear center in Dimona, tells the international community that Israel is pursuing a secret nuclear program and has acquired nuclear weapons.

2012

The conference on establishing a WMD-free zone in the Middle East, previously scheduled for December, fails to take place because Washington is not ready to convene it.

1991

Authorized by UNSC Resolution 687, the IAEA begins a series of inspections in Iraq and discovers an advanced secret nuclear program.

2003

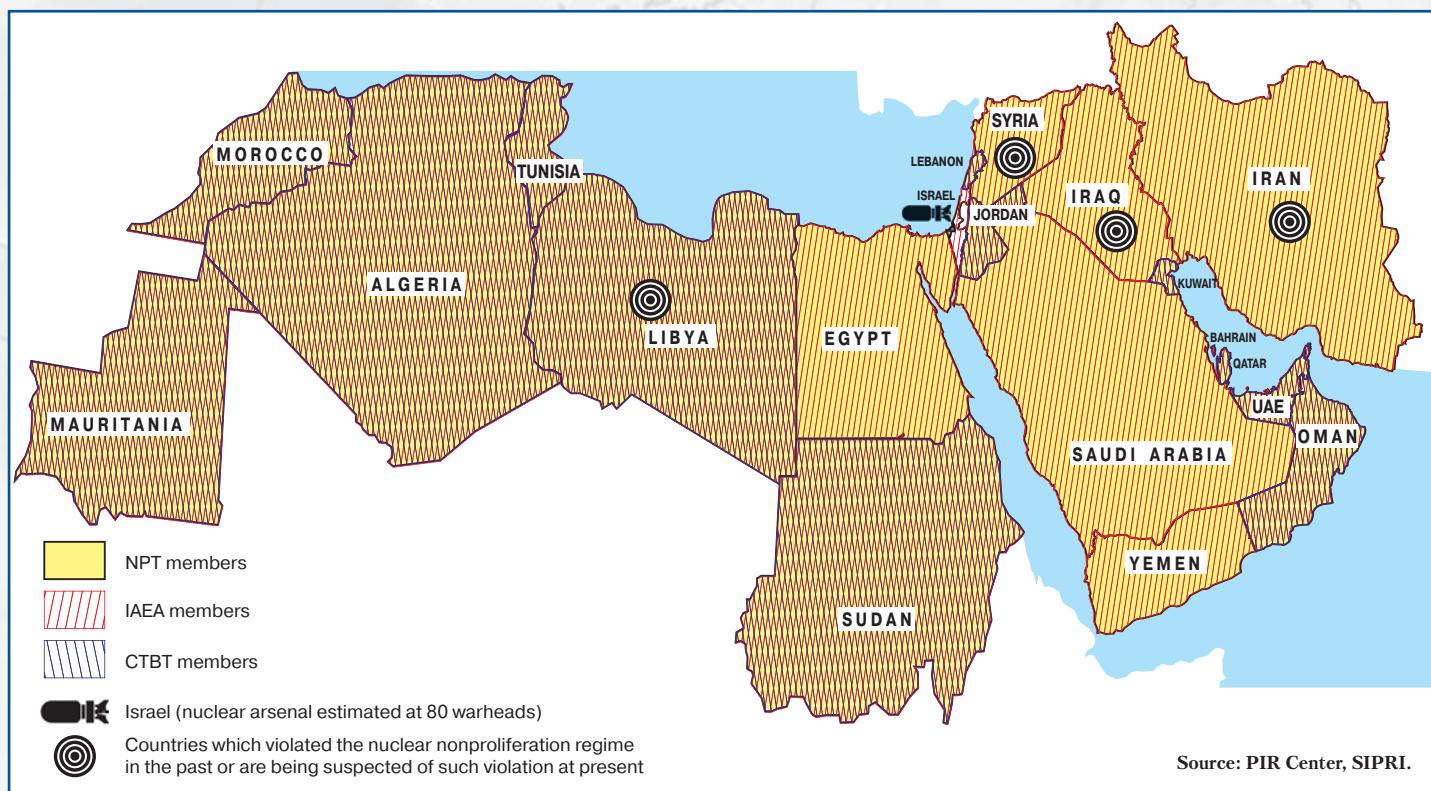
IAEA inspectors confirm that Iran is pursuing a secret nuclear program.

2007

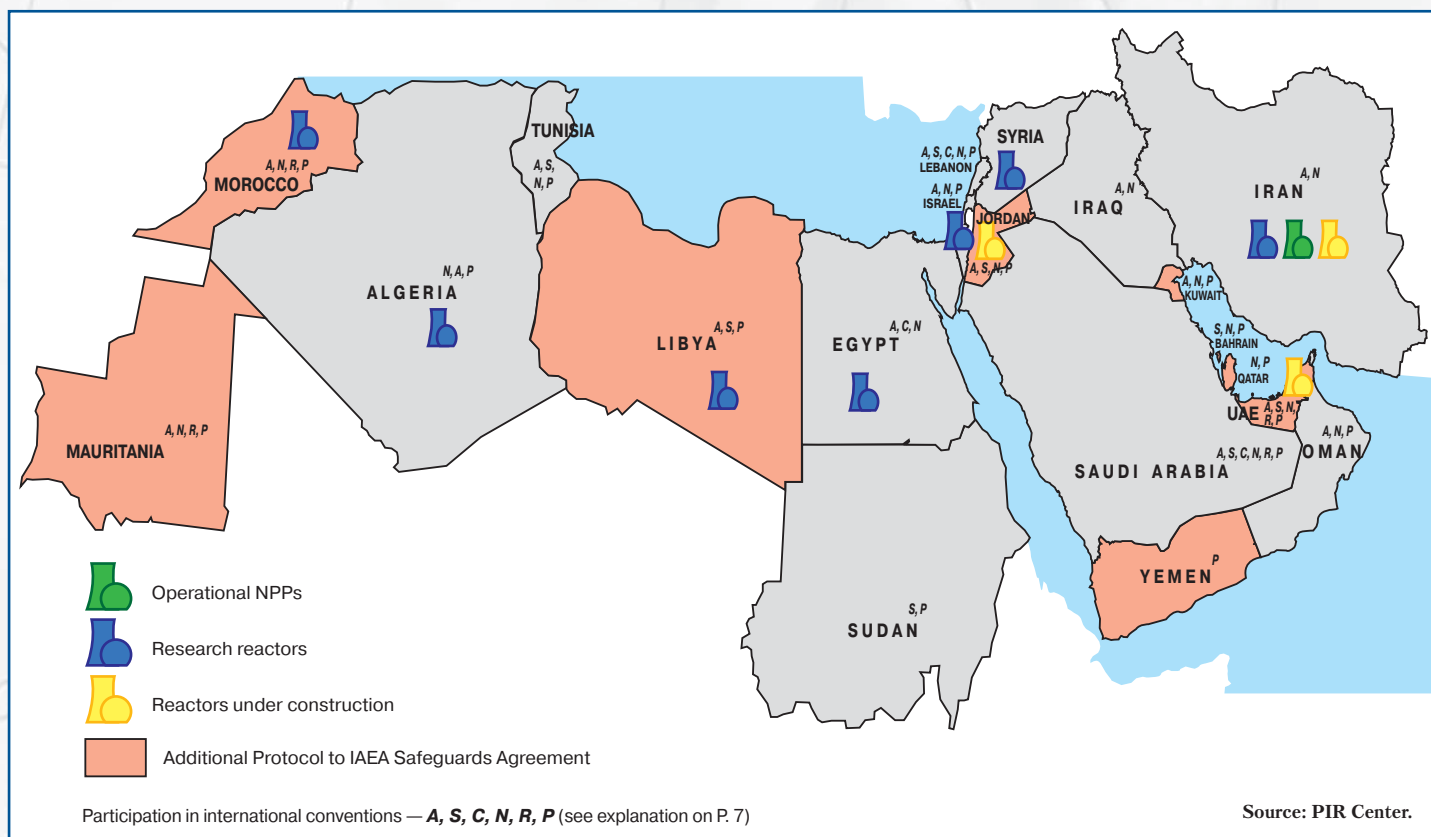
Israeli aviation delivers an air strike against a facility — presumably a nuclear reactor — in Syria.

STARTING POSITIONS — 2012

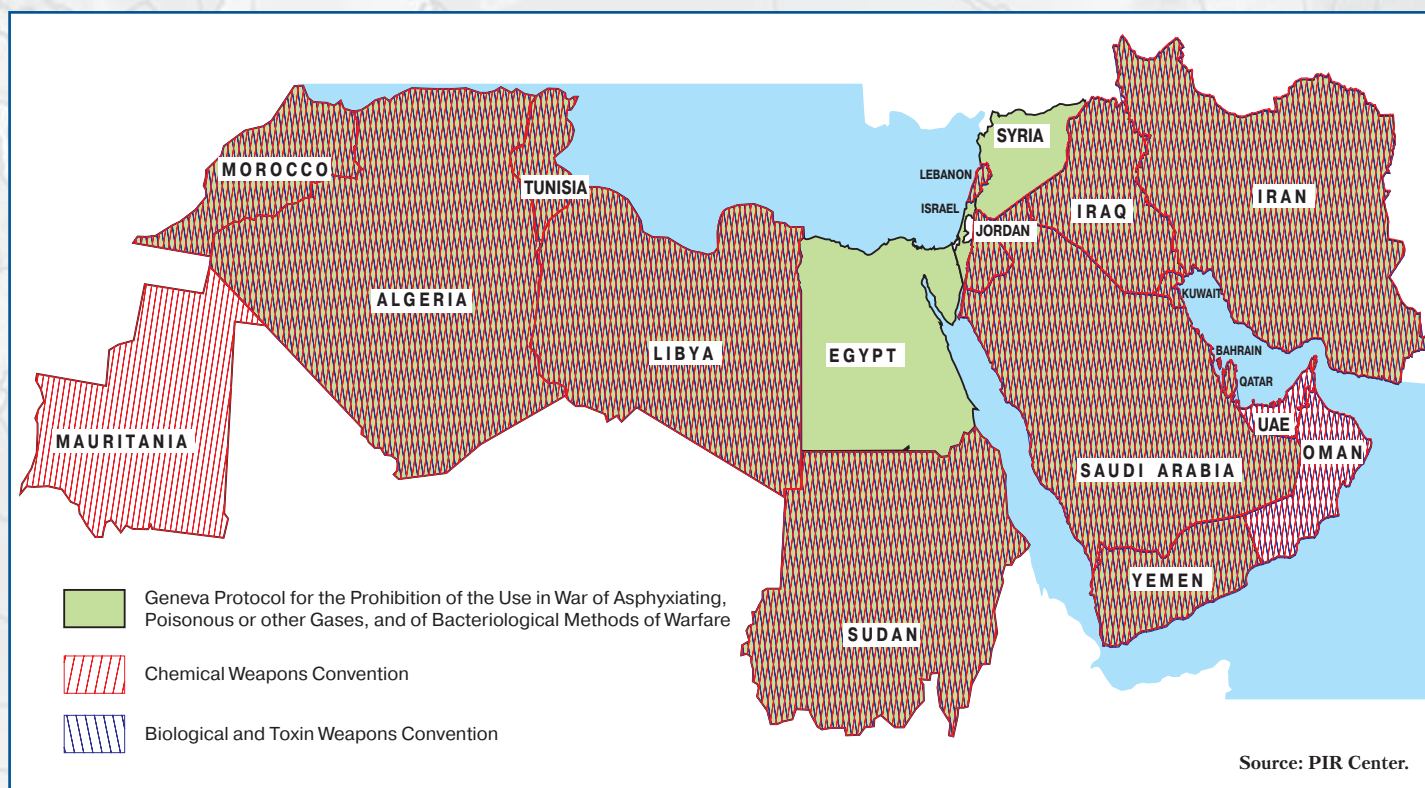
Nuclear nonproliferation



Peaceful nuclear energy



Chemical and biological weapons



Country	IAEA membership	NPT membership	Additional Protocol to IAEA Safeguards Agreement – in force	CTBT membership	Participation in international conventions (in force)
Algeria	Yes	Yes	No	Yes	N, A, P
Bahrain	Yes	Yes	Yes	Yes	S, N, P
Egypt	Yes	Yes	No	No ²	A, C, N
Iran	Yes	Yes	No ¹	No ²	A, N
Iraq	Yes	Yes	No ¹	No ²	A, N
Israel	Yes	No	No	No	A, N, P
Jordan	Yes	Yes	Yes	Yes	A, S, N, P
Kuwait	Yes	Yes	Yes	Yes	A, N, P
Lebanon	Yes	Yes	No	Yes	A, S, C, N, P
Libya	Yes	Yes	Yes	Yes	A, S, P
Mauritania	Yes	Yes	Yes	Yes	A, N, R, P
Morocco	Yes	Yes	Yes	Yes	A, N, R, P
Oman	Yes	Yes	No	Yes	A, N, P
Qatar	Yes	Yes	Yes	Yes	N, P
Saudi Arabia	Yes	Yes	No	No	A, S, C, N, R, P
Sudan	Yes	Yes	No	Yes	S, P
Syria	Yes	Yes	No	No	
Tunisia	Yes	Yes	No ¹	Yes	A, S, N, P
UAE	Yes	Yes	Yes	Yes	A, S, N, R, P
Yemen	Yes	Yes	Yes	No ²	P

¹ – Additional Protocol signed but not ratified, ² – CTBT signed but not ratified.

Participation in international conventions: A – Convention on Assistance in the case of Nuclear Accident or Radiological Emergency; S – Convention on Nuclear Safety; C – Vienna Convention on Civil Liability for Nuclear Damage; N – Convention on the Early Notification of a Nuclear Accident; R – The Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management; P – Convention on the Physical Protection of Nuclear Material.

KEY PLAYERS

The United States is one of the co-sponsors of the Middle East resolution passed by the 1995 NPT Review Conference. It supports the establishment of the zone, but not to the detriment of Israel's security. It believes that setting a rigid deadline for holding the conference on establishing the zone is counterproductive, and says that the main precondition of the talks is genuine interest from all parties and stability in the Middle East.



A constructive, meaningful dialogue will be possible only when the regional states themselves, are ready to address the key underlying problems. The United States

cannot guarantee the conference will happen or that it will be a success, however, we can guarantee that we will continue to work with the Facilitator and the other conveners to urge the states of the region to create the political conditions necessary for a successful meeting. We don't want to convene a meeting to check a box. I think we all can agree that a contentious and disruptive conference that drives states in the region farther apart will not serve the NPT well, nor will it advance the cause of a weapons of mass destruction free zone in the Middle East. It will only set back such an effort.

Rose Gottemoeller,
*Acting US Under Secretary
for Arms Control
and International Security*



To my opinion it would be more consistent from Turkey's standpoint to support on the one hand the idea of a nuclear-weapons-free zone in the Middle East and the other hand to withdraw the tactical nuclear weapons that belong to the United States and that are stationed on Turkish territory. When I addressed our foreign ministry the answer was that that is a different situation. Ankara should set a good precedent and boost to the efforts to create a nuclear weapons free zone in the Middle East.

Mustafa Kibaroglu,
*Chair, International Relations
Department, Okan University, Turkey*

The EU supports efforts aimed at holding the conference and establishing a WMD-free zone, and tries not to take sides. Jaakko Laajava, the facilitator of the 2012 Conference on establishing a WMD-free zone in the Middle East, is a deputy foreign minister of Finland.



The project of a conference establishing a WMD-free zone can be seen as an important opportunity for all the countries in the region, an opportunity to bring peace and prosperity to the Middle East. All steps involving commitments in the area of security are risky by nature, but risks can certainly abound if no efforts at all in this direction are being made in the region. As elsewhere, the primary responsibility rests at all times with the states of the region themselves, however there has to be a full support to their efforts by the entire international community.

Ambassador Jaakko Laajava,
*Facilitator of the 2012 Middle East
Conference, speaking in personal capacity*



Egypt is a staunch supporter of establishing the WMD-free zone. It has yet to ratify the CWC, BTWC, CTBT, the Pelindaba Treaty and the Additional Protocol to the IAEA Safeguards Agreement, saying that certain steps must first be made by Israel.



Turkey has no plans of becoming part of the WMD-free zone, but it actively supports the idea of its establishment.



Following a deterioration in relations with Israel, Ankara's position has become closer to that of Egypt and other Arab states. Compared to its NATO partners, Turkey has traditionally pursued a more conciliatory policy on Iran.

Israel is not an NPT member, and regards the decisions of the 2010 NPT Review Conference as non-binding for itself. It has made its participation in the talks conditional on progress being made in the peace process, placing an emphasis on chemical and biological weapons in Arab countries and on the Iranian nuclear program.



Following a deterioration in relations with Israel, Ankara's position has become closer to that of Egypt and other Arab states. Compared to its NATO partners, Turkey has traditionally pursued a more conciliatory policy on Iran.

Russia is a co-sponsor of the Middle East resolution on establishing a WMD-free zone passed at the 1995 NPT Review Conference. It argues that the conference on establishing the WMD-free zone must be held within the stipulated time frame, and that Iran and Israel must both take part.



Iran supports the establishment of a WMD-free zone, and continues to regard nuclear weapons as sinful. Iran is one of the region's countries to have suffered from the use of WMD by its adversaries. It regards Israel as the main obstacle to establishing the zone.



Saudi Arabia supports the establishment of a WMD-free zone. Being Iran's neighbor, Riyadh is showing great interest in containing Tehran's suspected military nuclear program, and does not rule out the use of force to that end. Like other Arab states, it does not want Israel to have nuclear weapons. Riyadh welcomes Washington's participation in talks on establishing the zone.



As a result of the Middle East conference we should aim for a very brief final document that would not be overly ambitious, that would contain two main provisions, first, to confirm the readiness

to work towards achieving the long-term objective of establishing a zone, and second, to establish a relevant mechanism, a committee, or several working groups so that the process could be launched. All substantive issues could be left until later. For objective reasons during the conference itself it would be impossible to reach substantive conclusions and there is no need for that.

Mikhail Ulyanov,
*Director of the Department
for Security Affairs and Disarmament
of the Russian Foreign Ministry*



The Islamic Republic of Iran believes that the use of nuclear, chemical and similar types of weapons is a grave and unforgivable sin. We were the ones who proposed the idea of a Middle East free of

nuclear weapons, and we continue to support that idea.

Ali Khamenei,
the Supreme Leader of Iran



As far as a nuclear weapons-free zone, you know, when the lion lies down with the lamb, and you don't need a new lamb every day to satisfy the lion, then we might have this kind of transformation in the Middle East. But so far, you know who's been violating the nuclear non-proliferation pact day and night - those who signed it. So I think we should stay focused on the real problem in the Middle East. It's not Israel.

Benjamin Netanyahu,
Israeli prime minister



I encourage all States of the region to continue their constructive engagement with the facilitator. I also appeal to them to seize this rare opportunity to initiate a process that entails direct engagement on security issues — a critical shortcoming at the moment — and follow-on steps leading to achieving the complete elimination of all weapons of mass destruction in the region, nuclear, chemical and biological and their delivery systems.

Ban Ki-moon,
UN Secretary-General

Useful sources and links:

- Mikhail Ulyanov. The Conference on the Middle East WMD-Free Zone: the Region's Countries Should Be the Main Actors. *Security Index* № 2 (101), Summer 2012.
- The 2012 Conference on a Weapons of Mass Destruction-Free Zone in the Middle East. A Special Roundtable Report. James Martin Center for Nonproliferation Studies. July 2012.



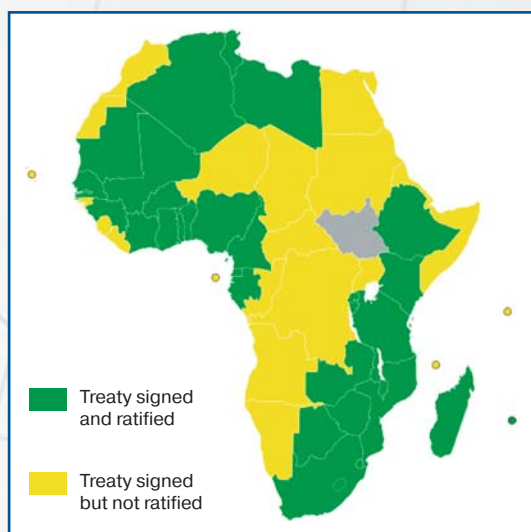
NUCLEAR-WEAPON-FREE



Latin America (Tlatelolco Treaty)

PROBLEM: Traditional regional rivalry between Brazil and Argentina was compounded by the fact that neither country was an NPT member. Both were pursuing secret nuclear weapons programs. In order to avoid inspections, the two procrastinated for a long time before ratifying the Tlatelolco Treaty in 1994.

SOLUTION: Once the civilian governments came to power in Brazil and Argentina, the military components of the two countries' nuclear programs were shut down. Bilateral talks concluded in 1991 with the signing of an agreement on exclusively peaceful use of nuclear energy. To ensure compliance, the two countries set up the Argentine-Brazilian Accounting and Control Commission (ABACC), which inspects nuclear facilities (including unannounced inspections) in cooperation with the IAEA.



Africa (Pelindaba Treaty)

PROBLEM: South Africa was developing a nuclear industry and had acquired nuclear weapons by 1979.

SOLUTION: The arrival of a new government in South Africa in 1989 improved Pretoria's relations with other countries. The new administration of President Frederik de Klerk decided to shut down the military nuclear program and destroy the nuclear arsenal. South Africa joined the NPT as a non-nuclear weapon state.

PROBLEM: Africa's Arab countries initially made the ratification of the treaty conditional on the resolution of the problem with Israel's nuclear program.

SOLUTION: After negotiations, some of the Arab countries (Algeria and Mauritania in 1998, and Libya in 2005) eventually agreed to ratify the treaty. (In Libya's case this was linked to the country's decision to renounce its WMD program in 2003.).



It is not just the members of the nuclear-weapon-free zones who are clear winners. The establishment of such zones has been an important element in the development of the nonproliferation regime as a whole. Since the beginning of the implementation of IAEA safeguards with regard to nuclear-weapon-free zones there has not been a single case of special inspections being conducted at the request of the local verification bodies (such as OPANAL). By strengthening the nonproliferation structure from the bottom up, the nuclear-weapon-free zones have had an important psychological effect; they have helped to overcome the perception of the NPT and the IAEA as instruments of the North foisted on the developing South.



Ildar Akhtamzyan.
Nuclear nonproliferation textbook. Volume I / Ildar Akhtamzyan et al.
 Edited by Vladimir Orlov. Moscow: PIR Center, 2013.

ZONES: WORLD EXPERIENCE

Southeast Asia (The Bangkok Treaty)

PROBLEM: The terms of the treaty apply not only to the territory of the member states, but also to their continental shelf and to their exclusive economic zones. Under these terms, the member states are obliged not to transport nuclear weapons. Because of these provisions not a single nuclear-weapon state has signed the protocol to the treaty.

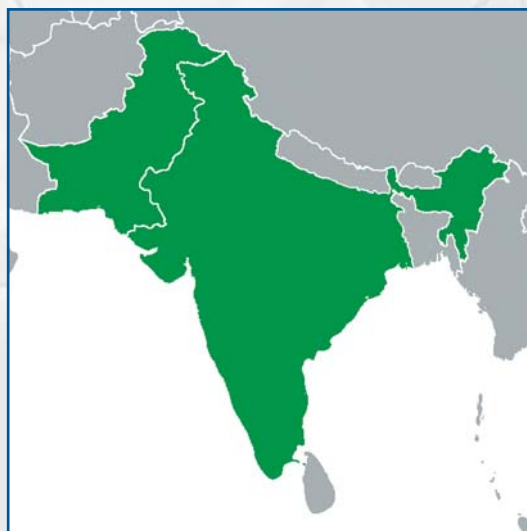
SOLUTION: The treaty states that it does not enter into conflict with the UN Convention on the Law of the Sea, which essentially means that the nuclear-weapon states' right to transport weapons remains unaffected. Nevertheless, a solution has yet to be found.



Confidence-building measures in South Asia

PROBLEM: By the late 1980s India had acquired nuclear weapons. India and Pakistan had made great progress in developing peaceful nuclear technologies; both countries had launched nuclear reactors. At the same time, they were teetering on the brink of a major war during the Siachen conflict in 1984–1987.

SOLUTION: After direct talks in Islamabad, India and Pakistan signed an agreement not to attack each other's nuclear facilities. Under the terms of the treaty, the two countries agreed that «Each party shall refrain from undertaking, encouraging or participating in, directly or indirectly, any action aimed at causing the destruction of, or damage to, any nuclear installation or facility in the other country». They also agreed to exchange the geographic coordinates of their nuclear facilities and installations; such exchanges are conducted every year on January 1. At a later point the two countries' foreign ministries set up a direct telephone hotline. They also signed an agreement to inform each other in advance about any military exercises; the document entered into force in August 1992. An Indian-Pakistani agreement on preventing emergencies and accidents with nuclear weapons has been in force since February 2007.



The Conference welcomes the steps that have been taken since 2005 to conclude nuclear-weapon-free zone treaties and recognizes the continuing contributions that the Antarctic Treaty, the Treaty for the Prohibition of Nuclear Weapons in Latin America and the Caribbean (Treaty of Tlatelolco), the South Pacific Nuclear Free Zone Treaty (Treaty of Rarotonga), the Treaty on the South-East Asia Nuclear Weapon Free Zone (Bangkok Treaty), the African Nuclear-Weapon-Free Zone Treaty (Pelindaba Treaty) and the Treaty on a Nuclear-Weapon-Free Zone in Central Asia are making towards attaining the objective of nuclear disarmament and nuclear nonproliferation.

*Final Document
of the 2010 Review Conference
of the Parties to the Treaty
on the Nonproliferation of Nuclear Weapons*

Useful sources and links:

- Nuclear-Weapon-Free Zones. Nuclear nonproliferation textbook. Volume I / Edited by Vladimir Orlov. Moscow: PIR Center, 2013 (in Russian)
- Nuclear-Weapon-Free Zones at a Glance. Arms Control Association. <http://www.armscontrol.org/factsheets/nwzf>
- More on Indian nuclear program (in Russian) — india.nuclearnine.pircenter.org
- More on Pakistani nuclear program (in Russian) — pakistan.nuclearnine.pircenter.org



TEN STEPS TOWARD A WMD-FREE ZONE

The negotiations aiming to establish a WMD-free zone in the Middle East will take many years; numerous conferences, working group sitting, and bilateral and multilateral meetings will have to be held. PIR Center offers a set of practical recommendations which will help to facilitate the process and achieve the desired outcome.

1

All participants in the talks to establish a WMD-free zone should make joint statements in which they commit themselves to refrain from attacks (including cyberattacks), or threats of attacks, against each other's declared nuclear facilities placed under IAEA Safeguards.

Making the commitment not to attack nuclear facilities conditional on these facilities being placed under IAEA safeguards would incentivize countries in the region to increase the transparency of their nuclear programs. Such a decision could also persuade Iran to start applying modified Code 3.1 to the IAEA Safeguards Agreement.

Modified Code 3.1 of the Subsidiary Arrangements to the Safeguards Agreement was introduced by the IAEA in the early 1990s. According to its provisions, countries must provide IAEA with information about nuclear facilities immediately after making the decision to build them, or after issuing an official permit for their construction, whichever comes first. Previously, countries were required to submit such information no later than 180 days before transporting nuclear materials to the facility in question. In 2003 Iran started to apply modified Code 3.1, but in 2007 unilaterally suspended its implementation.

Cyberattacks against Iranian enrichment facilities, as well as a spying efforts which relied on the Duqu and Flame viruses, have demonstrated that critical infrastructure, including nuclear facilities, is a lot more vulnerable than previously thought. To make matters worse, it is impossible reliably to identify the attacker in cyberspace, meaning that retaliatory strikes will be made almost at random.

In order to secure their nuclear facilities from cyberattacks, countries in the Middle East will have to cooperate and negotiate. Among other things, they could set up cybersecurity hotlines between the relevant agencies of the region's most advanced nations. In order to acquire the

necessary expertise and infrastructure, Middle Eastern states could use public-private partnership mechanisms, such as the International Multilateral Partnership Against Cyber Threats.



IR-1 centrifuges; about 1,000 of such centrifuges at the Natanz enrichment facility were disabled by the Stuxnet virus.
Photo: Russian Atomic Community

2

As part of the negotiations, the participants should draw a Road Map for gradually placing all nuclear infrastructure facilities in the region under the IAEA safeguards.



Dimona nuclear facility in Israel, aerial view.
Photo: Space Imaging Middle East



«Of course such a decision will be impossible without Israel's consent to place the Dimona facility under IAEA safeguards. At the same time, it would not be reasonable to insist that Israel necessarily declares its entire nuclear arsenal».

Vladimir Orlov,
PIR Center President

Useful sources and links:

- Maxim Simonenko. Stuxnet and Nuclear Enrichment of International Information Security. *Security Index* № 1 (104), Spring 2013 (in Russian).
- David Albright and Andrea Scheel. Unprecedented Projected Nuclear Growth in the Middle East: Now Is the Time to Create Effective Barriers to Proliferation. ISIS report. November 12, 2008.



CONFIDENCE-BUILDING

3

During the talks, all the states in the region should reach an understanding on the need to ratify without any further delay the Additional Protocol to the IAEA Safeguards Agreement.

Iran, which signed the Additional Protocol in 2003 and voluntarily complied with its provisions until 2006, could ratify the protocol to demonstrate the peaceful nature of its nuclear program. If Israel agrees to place its nuclear facility in Dimona under the IAEA safeguards, it could be given more time before it has to start implementing the Additional Protocol.

«Each Party undertakes to conclude with the IAEA and bring into force, if it has not already done so, an agreement for the application of safeguards in accordance with the NPT, and an Additional Protocol not later than 18 months after the entry into force of this Treaty».

*Treaty on a Nuclear-Weapon-Free Zone
in Central Asia,
Article 8. IAEA Safeguards*



IAEA inspectors on a visit to the nuclear facility in Isfahan. According to the provisions of the Additional Protocol, inspectors can make unannounced visits and take samples from the environment outside the declared areas if the IAEA deems it necessary.
Photo: Council on Foreign Relations

4

The process could be facilitated by a decision to form a standing regional mechanism for confidence-building measures with regard to nuclear programs, as well as chemical and biological weapons and some types of delivery systems.



«No matter what we are talking about, be it relations between the Warsaw Pact and NATO, or negotiations of the Working Group for Arms Control and Regional Security in

the Middle East — there is one simple rule. When both sides benefit from an agreement, you sign that agreement. When the agreement benefits only one side, and that side is not strong enough to crush the other side, there will be no agreement. In the Middle East there is a balance of power: the Arab states have the numerical advantage, while Israel has a strong army, with Iran being the third party. None of these three parties is capable of totally defeating the others.

The working group for arms control and regional security was useful because it

managed to gather different parties around the negotiating table and to get them to discuss opportunities for peace. They did not achieve a complete success, and the main mistake was that we did not invite all the parties. The Syrians were not there; Iran was not invited; and, of course, Iraq was not there, either. That is why during the negotiations the Israelis were retorting, 'You are talking about peace, but what shall we do about our tensions with Syria, about our difficulties with Iran, or about the situation in Iraq?' Countries should not feel that their presence gives them the right of veto. But everyone must be invited».

*Ambassador Nabil Fahmy,
Dean of the School of Public Affairs
at the American University in Cairo;
in 1991–1995 he led the Egyptian delegation
at the Working Group
on Regional Security and Arms Control*

In the early stages the parties could establish a consultation mechanism. They could use the experience of the Working Group for Regional Security and Arms Control, which was established as part of the Madrid Process in the early 1990s – although the new mechanism should secure broader participation than the old working group. At some point in the future it would make sense to introduce a verification system, modeled perhaps on the Argentine-Brazilian Accounting and Control Commission (ABACC)

Useful sources and links:

- Emily Landau. ACRS: What Worked, What Didn't, and What Could Be Relevant for the Region Today. Published in Disarmament Forum Arms Control in the Middle East. UNIDIR. 2008 no. 2.
- Application of IAEA Safeguards in the Middle East. Report by the Director General. GOV/2012/38-GC (56)/17. August 27, 2012.



NUCLEAR TESTS

5

Participation of all the Middle Eastern states in the Comprehensive Nuclear Test Ban Treaty should be a precondition for signing a treaty establishing a WMD-free zone in the region.

By December 2012 157 countries had ratified the CTBT — but before the treaty can enter into force, all 44 of the countries listed in Annex 2 must ratify. In the Middle East there remain three such countries: Egypt, Iran and Israel. Unilateral simultaneous statements by these countries declaring their readiness to ratify the treaty without delay would make a significant contribution to establishing the WMD-free zone.

Useful sources and links:

- Tibor Tóth. CTBT: Not yet in force but already effective. *Security Index* journal, Issue 3 (100), 2012.
- Michael Elleman. Banning Long-Range Missiles in the Middle East: A First Step for Regional Arms Control. *Arms Control Today*, May 2012.



PS21 seismic station of the international system of nuclear tests monitoring near Tehran.
Photo: CTBTO Preparatory Commission

DELIVERY SYSTEMS

6

Delivery systems should not be at the top of the agenda of the talks on establishing the WMD-free zone. Nevertheless, signing agreements to ban certain types of missiles would help build confidence and establish verification mechanisms in the region.

Countries in the region could sign a treaty banning intercontinental ballistic missiles (with a range of over 3,500 km). Such a treaty would not compromise the offensive capabilities of the Middle Eastern states because as of this moment none of them actually have ICBMs in their arsenals. In addition, missiles with a range of just 1,500 km are sufficient to strike any target within that region. At the same time, such a decision would set a ceiling for the missile arms race in the Middle East (for example, Israel would terminate its Jericho-3 missile program) and establish mechanisms for cooperation and verification.

Missile class	Range, km	Examples in the region in 2012
Short-range	500-1,000	<i>Shahab-2</i> (Iran)
Medium-range	1,000-5,000	<i>Jericho-2</i> (Israel), <i>Shahab-3</i> (Iran), <i>DongFeng 3A</i> (Saudi Arabia)
Intermediate-range and ICBMs	Over 3,500	None

Source: NTI Country Profiles, 2012.

After the signing of such a treaty, detailed discussions could begin about the Middle Eastern countries joining the Russian-U.S. Intermediate-Range and Short-Range Nuclear Forces (INF) Treaty.

DRAFT TREATY ESTABLISHING A WMD-FREE ZONE

7

The negotiations should lead to a decision to set up an intergovernmental commission to draft the text of the treaty establishing a WMD-free zone in the Middle East. This should be done with the understanding that during the work on the text of the treaty all countries in the region will join the Chemical Weapons Convention (CWC) and the Biological and Toxin Weapons Convention (BTWC). The treaty should also establish verification mechanisms.



«Despite the existence of the Chemical Weapons Convention, the Biological and Toxin Weapons Convention, and the Geneva Protocol for the Prohibition of the

Use in War of Asphyxiating, Poisonous or other Gases, and of Bacteriological Methods of Warfare, all these types of weapons continue to exist. Simple inclusion of references to the CWC or the BTWC in the text of the treaty establishing a WMD-free zone is unlikely to produce the desired outcome. A solution for the Middle East could be found in the form of intra-regional controls aimed at restricting the supplies of technologies and materials necessary for chemical and biological weapons programs — an equivalent of the Australian Group on a regional scale».

Natalia Kalinina,
*Senior Fellow at the Institute
of World Economy
and International Relations
of the Russian Academy of Sciences,
PIR Center Advisory
Board member*

Some of the Middle Eastern states have foreign (mostly American) military bases on their territory, so the issue of the transit of nuclear weapons and of banning the entry of ships carrying such weapons to the region's ports will be extremely contentious. The US Fifth Fleet, which is based in Manama, may include ships capable of carrying nuclear weapons. Bahrain and other Gulf monarchies are interested in continued US presence.

The negotiations will inevitably have to deal with the question of the Palestinian state's participation in the WMD-free zone. Palestine has been recognized as a state by all the countries in the region but Israel, and is a member of the Arab League. Palestine's inclusion as one of the parties at the talks would probably be vehemently opposed by Israel and the United States. It would therefore seem preferable to give the Palestinian National Administration observer status at the talks.



«Such a zone should provide economic and technical support to the countries who wish to join, and offer a nuclear umbrella provided by the permanent members of the UN Security

Council. It must include mechanisms for imposing economic and political sanctions on countries which are unwilling to become part of the zone, as well as military sanctions against those nations which may attempt to create weapons of mass destruction — that should also be guaranteed by the permanent members of the Security Council».

**His Royal Highness
Prince Turki bin Faisal Al Saud,**
*Chairman of the Board
of the King Faisal Center
for Research
and Islamic Studies*

The treaty establishing a WMD-free zone in the Middle East will probably have to contain negative security assurances on the part of the nuclear weapon states the same way as the nuclear weapon-free zone treaties have. In the case that the P5 countries clearly state that they will sign and ratify the security assurance protocols as soon as possible, it will become an additional stimulus for the states of the region to join the treaty.



USS Maine, an Ohio-class submarine armed with Trident II ballistic missiles with nuclear warheads. Photo: US Navy Visual Information Center

Useful sources and links:

- Vladimir Orlov. Towards the 2012 Conference on the WMD-Free Zone on the Middle East Statement at PIR Center International Seminar in Moscow. October 4, 2012 .
- George Dunn, Roland Timerbaev. Security Assurances to nuclear-weapon States. *The Non-Proliferation Review*. Fall, 1993.



PEACEFUL NUCLEAR

8

Internationalizing the nuclear fuel cycle would strengthen international cooperation in the region and reduce the likelihood of some countries choosing to pursue nuclear weapons programs.

As of 2012 there were three international companies which hosted multilateral nuclear fuel cycles



Eurodif (*European Consortium for Gas Diffusion Enrichment of Uranium*) is a joint stock company specializing in uranium enrichment. It has enrichment facilities in France's Drôme Department. Its shareholders are France, Belgium, Italy, Spain and Iran (which owns a 10-per-cent stake via Sofidif, a joint Iranian-French venture). Under the terms of a 1991 agreement between France and Iran, the latter does not have access to nuclear technologies and cannot receive enriched uranium. In addition, the French government has suspended the payment of dividends to Iran in compliance with UN Security Council Resolution 1737.



URENCO is a limited liability company specializing in uranium enrichment. It has four enrichment facilities in Gronau (Germany), Capenhurst (UK), Almelo (the Netherlands) and Eunice (USA). Its shareholders are Britain, the Netherlands, and two German companies, E.ON and RWE.

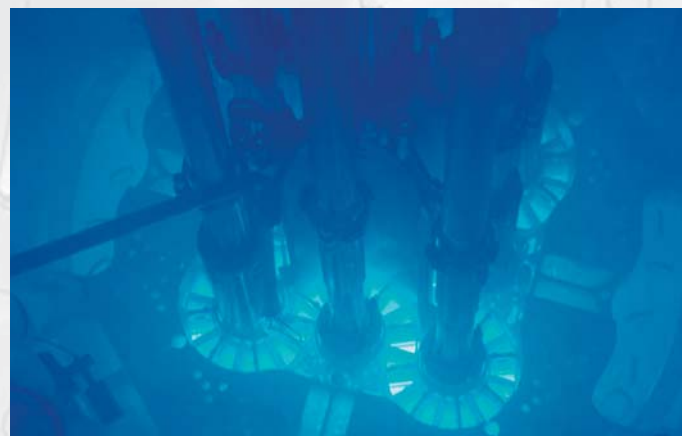


The International Uranium Enrichment Center (IUEC) in Angarsk, Russia, is a joint stock company which provides its stakeholders with assured access to uranium enrichment services. Russia holds a 70-per-cent stake in the venture; Kazakhstan, Armenia and Ukraine own 10 per cent apiece. In addition, the IUEC hosts the Fuel Bank, a stockpile of low-enriched uranium which underpins assurances of supply to other countries at the request of the IAEA.



Useful sources and links:

- Giacomo Luciani. The Rationale for Nuclear Energy in the Persian Gulf Countries. *Security Index*, № 4 (101), Fall 2012.
- Mohamed Shaker. 2007. The Internationalization of the Nuclear Fuel Cycle: An Arab Perspective. Paper presented at the Workshop on the Internationalization of the Nuclear Fuel Cycle.
- PIR Center project «Russia's Role in the Process of Establishing the WMDFZ and Development of Peaceful Nuclear Energy in the Middle East» middle-east.eng.pircenter.org



Fuel rods in a reactor core. In February 2012 Iran for the first time loaded indigenously made fuel rods into its research reactor. Photo: Matt Howard/Idaho National Laboratory



«Why don't we internationalize, regionalize the Iranian sensitive technologies, and bring in Arab stakeholders? Iran will keep its initial facilities, but will have partners that will overlook the process and will be there on the board like in case of URENCO. This will have the advantage that we will all be watching each other but it will also imply the economy of scale and there will be no need for other countries to develop things that are already there».



Mohamed Shaker,
Chairman of Egyptian Council for Foreign Affairs



The Angrsk Electrolysis Chemical Combine in Irkutsk Region, which hosts the IUEC. Photo: the Russian Atomic Community

ENERGY COOPERATION

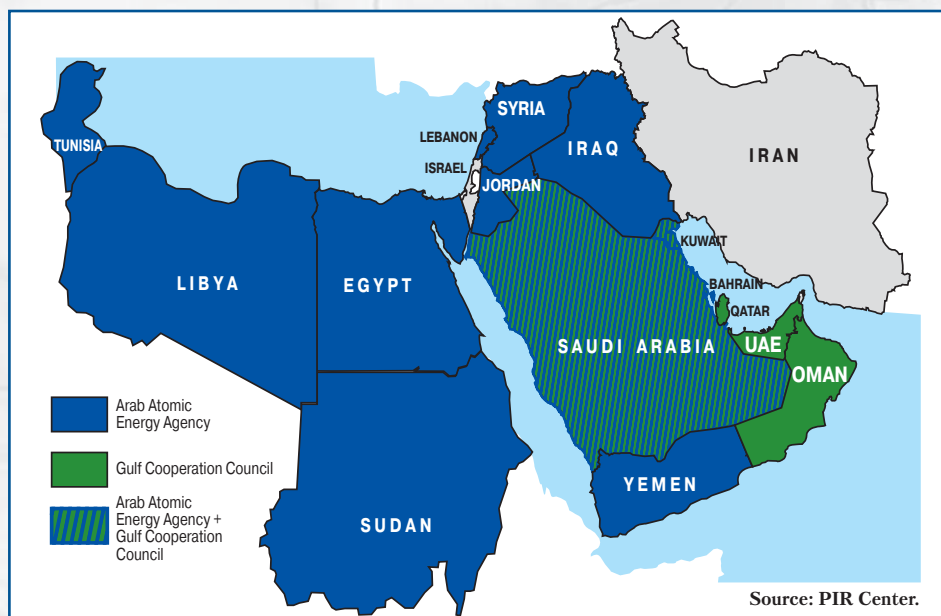
9

Institutional nuclear cooperation in the Middle East should be strengthened through the creation of a universal body which would include every country in the region.



«Nuclear energy needs a peaceful external environment to develop in a normal way. Nuclear energy and military conflicts are incompatible because of the nature of the nuclear power plant. This understanding does not come automatically, but when we start this cooperation, when we start talking about this past experience and about getting new information, countries and experts change their thinking drastically. We believe that well thought-out cooperation in the nuclear sector promotes peace and security in this conflict-ridden region».

*Nikolai Spassky,
Deputy Director General of the Atomic
State Corporation Rosatom*



Integration projects in the nuclear energy sector of the Middle East



The Gulf Cooperation Council (GCC) is a regional organization which coordinates economic, social and cultural cooperation and integration. In December 2006 GCC members launched a joint program to access the prospects for nuclear energy development. In February 2007 they submitted a

similar request to the IAEA — but since then the issue has dropped off the back of the wagon. Two GCC members, Saudi Arabia and the United Arab Emirates, are now pursuing independent national nuclear programs.



The Arab Atomic Energy Agency (AAEA) is one of the Arab League organizations with the headquarters in Tunis. The main goal of the AAEA

is to facilitate the development of peaceful nuclear energy in the Arab countries of North Africa and the Middle East by coordinating national efforts, providing expertise, helping to train specialists and holding science conferences. At present, lack of resources and interest from the region's countries in a multilateral format are preventing the AAEA from making any significant contribution to the development of nuclear energy in the Arab world.

10

The states of the Middle East which are on the verge of a rapid expansion of their nuclear infrastructure should establish reliable mechanisms for early warning in the event of a nuclear accident.

There are now about a dozen nuclear energy facilities being built or already in operation in the Middle East, but many countries in the region have yet to implement the IAEA Convention on Early Notification of a Nuclear Accident. Nuclear safety issues are therefore becoming just as important as nuclear security. After the Fukushima accident the nuclear power plants in the region become less of the concern from the point of nonproliferation, and a greater emphasis has been placed on the environmental side of the issue. Iran's neighbors in the Gulf have started to call for stress tests to be conducted at the Bushehr NPP.

«Each State Party which has not acceded to the Convention on Early Notification of a Nuclear Accident shall endeavour to do so».

*Southeast Asian
Nuclear-Weapon-Free Zone Treaty.
Article 6*

Ten steps towards establishing a WMD-free zone in the Middle East

- 1** Issuing joint statements by all countries in the region committing not to attack, or to threaten with an attack against each other's declared nuclear facilities placed under the IAEA safeguards.
- 2** Drawing up a Road Map on the gradual placement of all nuclear infrastructure facilities in the Middle East under IAEA safeguards.
- 3** Ratifying Additional Protocol to the IAEA Safeguards Agreement by all states of the Middle East.
- 4** Forming a standing regional mechanism for confidence-building measures with regard to nuclear programs, as well as chemical and biological weapons and some types of delivery systems.
- 5** Ratifying the Comprehensive Nuclear Test Ban Treaty by all countries in the region.
- 6** Concluding agreement by all Middle Eastern states to ban missiles with a range of more than 3,500 km.
- 7** Forming intergovernmental commission to draft the text of the treaty establishing a nuclear-weapon-free zone in the Middle East. During the drafting of the treaty all countries in the region should join the Chemical Weapons Convention and the Biological and Toxin Weapons Convention.
- 8** Internationalizing and regionalizing the nuclear fuel cycle.
- 9** Institutionalizing nuclear cooperation, and establishing a universal regional body to facilitate such cooperation.
- 10** Establishing effective regional mechanisms for early warning in the event of a nuclear accident.

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