# The proliferation of weapons of mass destruction

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#### Introduction

Regarding the proliferation of weapons of mass destruction, no major changes have taken place in 2012. This does not mean that there are no major developments to report on. In a number of worrying cases, the situation has deteriorated further. Steadily increasing risks include the situation regarding Iran's nuclear programme, weapons of mass destruction in Syria, and in particular the nuclear developments in North Korea and control of nuclear weapons in Pakistan. Of special concern is the slowly declining support for the multilateral non-proliferation regime—a development that is extra troubling in the light of the deteriorating situations just mentioned.

# 1 Significant changes in the past year

Broadly speaking, there was continuity with respect to the 2012 Monitor as far as weapons of mass destruction (WMD) are concerned: no new owners of WMD were added, no new efforts to acquire WMD emerged, and no WMD were used. Nevertheless, the worrying developments that were reported last year have intensified.

The most important crisis regarding WMD is currently Iran's nuclear programme. In the past year, tension surrounding this situation has grown because international negotiations with Iran failed and pressure on the Iranian regime has meanwhile increased. This is not only due to stronger warnings from the International Atomic Energy Agency (IAEA) but above all to a more concerted policy of economic sanctions by the international community. Although the sanctions were not mandated by the UN, much international support exists for the boycott of Iranian oil exports and the financial sanctions that have been initiated by the United States, which is hitting the Iranian economy hard. From a security perspective, however, the escalating rhetoric from Israel is especially worrying. Although this country has for years alluded to a military intervention in order to force Iran to put an end to its nuclear programme, in the past year Israel seemed to be seriously heading towards a military confrontation with Iran. The vehement speech by President Netanyahu at the UN General Assembly is one example of this. Partly influenced by Israel's rhetoric, calls for a preemptive strike have also increased in some political and military circles in the United States. The tension in this already unstable region has further increased as a result of these events.

Also in the Middle East, chemical weapons in Syria are a concern. It had been a well-known fact that Syria, one of the few countries that has not signed the Chemical Weapons Convention, possesses these weapons of mass destruction. In 2012, however, the regime in Damascus publicly announced that it did have chemical weapons and even threatened to deploy them against any possible foreign intervention forces. The biggest concern is that the chemical weapons will fall into the hands of terrorists while the armed uprising in Syria continues to rage. Terrorist groups that spread chemical weapons or other related material across the region are a dangerous scenario. The use

#### Box 1 Little has come of nuclear disarmament

Although the United States, Russia, the United Kingdom, France, and China promised in the 1968 Non-Proliferation Treaty that they would work towards the dismantling of their nuclear weapons—albeit without any mention of a deadline—together they still own enough nuclear weapons to destroy the earth many times over. The 'unit of measurement' for nuclear weapons is generally the warhead—these come in many shapes and sizes, but the simplification for comparison purposes gives a clear picture of the distribution among the nuclear powers. The most authoritative estimate of the number of warheads per January 2012 was:

Figure 1 Estimated number of warheads per country (SIPRI,2012).

Country	Number of warheads (estimate)
Russia	10000
United States	8500
France	300
China	240
United Kingdom	225

In addition, there are three states that have not signed the NPT. They probably have the following number of nuclear warheads:

Figure 2 Estimated number of warheads from countries that have not signed the NPT (SIPRI 2012).

Country	Number of warheads (estimate)
Pakistan	110
India	100
Israel	80

North Korea claims to have withdrawn from the NPT itself, but this is being disputed on legal grounds. Despite three nuclear test explosions, the country appears to possess no usable warheads.

The United States and Russia together own more than 97 percent of all nuclear weapons in the world. It is therefore often suggested that these two countries must first dismantle large amounts of their nuclear arsenal before other nuclear weapons states can even begin to think of reducing theirs.

of chemical weapons in Syria itself—by government forces or by insurgents—is a risk that would result in many victims, including among the civilian population.

The situation in North Korea and Pakistan also remains worrying. North Korea continues to work steadily and apparently unhindered on the development of nuclear weapons and long-range missiles (in addition to its alleged existing arsenals of chemical and

#### Box 2 Very fine cracks in the multilateral system

The multilateral system of treaties on non-proliferation and disarmament of weapons of mass destruction has been very successful. In particular, the Nuclear Non-Proliferation Treaty (NPT), dating from 1968, fulfils the role of an example: all but three countries in the world have become parties, it enjoys wide support, and it has an effective verification organisation (the International Atomic Energy Agency, or IAEA). The Chemical Weapons Convention, dating from 1997, is also a success, with nearly universal membership, effective verification, and even a deadline for actual disarmament. Various 'smaller' treaties in specific areas act as pillars for the non-proliferation regime. For example, some treaties focus on specific aspects such as nuclear tests (Comprehensive Test Ban Treaty, or CTBT) or the means of delivery (The Hague Code of Conduct). This multilateral system has contributed significantly to international security. It has created an international norm by which weapons of mass destruction are seen as something objectionable, something that only pariah states would begin to develop. The great powers already possess these weapons, and this has been difficult to reverse. Most importantly, the treaty system provides an effective way to build mutual trust between states. As a result of proper authentication methods, states dare to rely on diplomatic agreements for their security instead of weapons.

Despite its success, the system is far from perfect. From the beginning, cracks had been visible. In recent years, these appear to have slowly become larger. The more international support for the treaties crumbles, the greater the danger that the whole regime will collapse. Here is a list of areas of concern, which is by no means exhaustive:

The main problem is the discrimination aspect of the NPT. The distinction between countries that may possess nuclear weapons (the five permanent members of the Security Council) and the rest of the world which is not allowed to possess these weapons has long been considered both inevitable and temporary. In the treaty, the possessor states promised—albeit vaguely-to dismantle their nuclear weapons over time. Forty years later, many countries complain that the non-owners have complied with the agreements while the possessors have not made much progress in eliminating their nuclear weapons. Many have expressed their dissatisfaction with the lack of pressure on those countries that have remained outside the treaty and that have built up a nuclear weapons arsenal. The selfevidence with which especially the West accepts Israel's nuclear weapons, but also the nuclear 'deal' that the US made with India in 2008, have provoked outrage. Not participating in the NPT apparently pays off-this is the criticism that is heard. The ease with which North Korea was able to withdraw from the NPT in 2003 and subsequently build nuclear weapons is also seen as a weakness of the system. There are fears that Iran will do the same, thus giving the NPT its final blow. The fact that Iran as an NPT member is being dealt with more stringently than non-members such as Israel or India is also leading to criticism that double standards are being applied.

In addition, much criticism is directed at the Biological and Toxin Weapons Convention (BTWC), especially in the US, which is leading the group of member states that are trying to block the creation of a treaty verification organisation. Critics believe that the signing of the treaty would mean little because there is nobody to monitor the treaty. The Comprehensive Test Ban Treaty (CTBT) has not even entered into force due to the refusal of great powers

like the US to ratify it. And the Conference on Disarmament in Geneva has taken no decision for many years due to serious divisions, as a result of which a potential ban on the production of nuclear weapons material (Fissile Material Cut-Off Treaty) has not gotten off the ground. Finally, in recent years there has been a tendency, especially with the US, to prefer to work with 'coalitions of the willing' rather than in the context of multilateral negotiations in which everyone can participate. Examples are the Proliferation Security Initiative (PSI) and the Nuclear Security Summit (NSS) process. If such trends continue, the very fine cracks in the non-proliferation regime could become more serious fissures that eventually lead to its collapse.

biological weapons). In early 2013, North Korea conducted its third nuclear test explosion, shortly after a successful launch of a long-range missile. This trial was the prelude to rapidly rising tensions with South Korea and the US in the spring of 2013. In Pakistan, the stability of the central government remains questionable. Large parts of the country are *de facto* no longer under central control. The risk that the central government will lose control over parts of its nuclear arsenal is not yet significant but is slowly increasing (Tertrais 2012).

Support for the multilateral non-proliferation regime also remains a source of concern. The five nuclear weapons states as recognised in the Nuclear Non-Proliferation Treaty (NPT) still possess nuclear weapons, in contrast to their treaty obligations (see Box 1). They are making major investments in modernising their nuclear arsenal, whereas according to the treaty they should be gradually dismantling their nuclear weapons (Lewis 2012). This will undoubtedly be a sensitive issue at the next Review Conference of the NPT in 2015.

The agreement to work on a WMD-free zone in the Middle East, made at the NPT Review Conference in 2010, is also far from proceeding smoothly. The UN conference on this issue, which was scheduled to take place in Finland in December 2012, was postponed until further notice. The continued refusal of countries like the US to ratify the CTBT was a source of much international criticism in 2012. Criticism was also heaped on the US and Russia, both of which once again missed the CWC deadline of April 2012 for the destruction of their chemical weapons stockpiles.

The Review Conference of the Biological and Toxin Weapons Convention in December 2011 also made little progress in giving this fairly powerless treaty more momentum. Once again, the great powers such as the US are playing a dubious role in the eyes of many member states. Declining support for the multilateral non-proliferation regime is discussed further in Box 2.

#### Scenario framework

The changes described here do not result in a change in the scenario framework in comparison with the 2012 Monitor. The theme 'proliferation' still falls into the multilateral quadrant, despite the developments in several sub-themes (e.g. failure to reach international consensus on Iran and North Korea, and the slowly crumbling support for treaties like the NPT) that point to the multipolar/fragmentation quadrants.

# 2 The next five to ten years: Probabilities and uncertainties

#### **Probabilities**

 International pressure aimed at influencing the nuclear programmes of Iran and North Korea will continue, but it seems likely that both countries will concede little.

#### **Uncertainties**

- What will happen to Syria's chemical weapons?
- How will the tense situation surrounding the Iranian nuclear programme develop?
   Will Israel intervene, and if so, what are the consequences? How far will Iran go in the construction of its alleged nuclear weapons capability?
- Will Pakistan's nuclear weapons remain in the hands of a strong central government?
- Will the North Korean regime remain stable? Will North Korea's threat to use nuclear means remain just a threat?
- Will support for the multilateral disarmament and non-proliferation regime decline further?

Looking ahead to the next five to ten years the picture is full of uncertainties. In the short term, the situation surrounding Syria's chemical weapons in particular is uncertain. Will these weapons remain under state control or will non-state actors (rebels, terrorist groups) be able to lay their hands on them? Although both the Syrian regime and the rebels are aware of the risks of using chemical weapons (they will lose all international support), both parties could still use these weapons if they see no other way out. The use of chemical weapons against combatants, civilians, and any foreign intervention force cannot therefore be ruled out.

In addition, it is uncertain to what extent the situation surrounding the Iranian nuclear programme will escalate. Will Israel carry out an air strike on Iran, with or without the support of its allies? What would the consequences be, and to what extent will this lead to further escalation and conflict in the Middle East? If Israel does not attack, will Iran eventually develop a nuclear weapon? For the time being, Iran seems only to want to acquire the capability to develop a nuclear weapon (the so-called Japan option), but once that stage is reached, a decision to develop nuclear weapons is relatively

easy to take. In that case, further instability in the Middle East is likely. Iran would then have more room for manoeuver to push forward its own agenda in the region, and other countries will probably be sucked into an arms race (also in terms of defensive measures) in order to restore the strategic balance in the region.

In the medium term, it is uncertain how the situation in Pakistan will develop. Based on developments in recent years, it is conceivable that the country will be transformed into a high-risk country or a failing state. Whether the central regime will collapse or parts of the intelligence and military forces will overtly split off (taking with it nuclear weapons and nuclear material), however, is highly uncertain. It is also uncertain whether scenarios in which US and/or Indian special forces will try to bring nuclear material to safety are realistic. A total implosion of the Pakistani state will in any case lead to major instability in the region. The use of nuclear weapons against India in the final stage of a collapse of the government is a risk—the Pakistani regime could try to remain in power by waging war with a foreign enemy—while nuclear material that falls into the hands of extremist terrorist groups would cause worldwide concern.

In addition, the future of the North Korean regime remains uncertain in the medium term. In the short term, it seems very likely that the situation on the Korean peninsula will remain deadlocked. The new leader Kim Jong-un seems unwilling to give up the country's nuclear, chemical, and biological weapons. Whether the threat of the use of nuclear weapons remains just a threat has become more uncertain in view of the tense situation. If the regime nevertheless were to falter in the longer term, doomsday scenarios cannot be ruled out. South Korea in particular should be afraid of this happening. Nevertheless, China will probably not let this happen, so the *status quo* situation seems to be the most likely in the medium term.

Finally, support for the international system of disarmament treaties, with the NPT as the core, remains uncertain. Due to the lack of progress in the area of disarmament and non-proliferation, the already existing cracks in support for the treaty system could lead to a collapse of the system (see Box 2). This is less likely in the short term, however; it is more likely to be a steady long-term development.

## Scenario framework

For the scenario framework, the probabilities and uncertainties described above mean that non-proliferation will move slightly towards the multipolar and fragmentation quadrants in the coming years but without leaving the multilateral quadrant just yet. The uncertainties relating to Iran, North Korea, and Pakistan, for example, are not new, and the fight against the proliferation of weapons of mass destruction will continue to be carried out mainly through multilateral channels.

### 3 Strategic shocks

# Strategic shocks

- Non-state actors in the Middle East acquire and use weapons of mass destruction.
- The central authority in Pakistan collapses and nuclear weapons fall into the hands of other (non-state) groups.

The likelihood of the strategic shocks identified in the 2012 Strategic Monitor—the deployment of nuclear weapons in a regional conflict, an attack on European soil, and the collapse of the regime in North Korea—is unchanged. As a result of the developments in the past year, two strategic shocks can be added:

Non-state actors in the Middle East acquire and use weapons of mass destruction. This scenario has become more realistic specifically with regard to chemical weapons in Syria. It is not inconceivable that amid the chaos in Syria, terrorist groups obtain chemical weapons or materials to fabricate them in a makeshift fashion, after which they could be used against Israeli or Western and pro-Western targets in the region. Such a scenario could lead to further escalation and armed conflict in the region, with all the ensuing consequences for the international community. Escalation in the Middle East is traditionally bad for the world economy and could moreover lead to more acts of terrorism elsewhere.

The central authority in Pakistan collapses and nuclear weapons fall into the hands of other (non-state) groups. Although it is unlikely that Pakistan's nuclear weapons could be used effectively if they fall into other hands, we can assume that this scenario would generate a significant psychological threat, causing India and/or the United States to carry out possible preventive military action, which in itself could result in further escalation.

#### 4 Winners and losers

The balance of winners and losers as described last year has changed on only one point. Last year, Iran was still counted among the so-called 'winners' because it was able to book progress on its disputed nuclear programme relatively undisturbed due to the lack of unanimity within the international community. In 2012, this winner status has largely evaporated. Partly due to a more severe tone taken by the IAEA, the international community has closed ranks and significantly increased the pressure on Iran. In particular, the economic sanctions initiated by the US (albeit by bypassing the UN) have received relatively broad international support, causing significant damage to the Iranian economy. Although Iran still does not belong to the group of losers—it has, after all, made no concessions—we no longer consider it a winner.



Nuclear missile silo.

Photo: John Wollwerth (Shutterstock)

# 5 Implications for global security and stability

Various developments within the theme of 'proliferation' may have implications for global security and stability. Regarding territorial security, the likelihood of conflicts in the Middle East and in Pakistan and the region has risen. International economic security is threatened by the growing risk of an escalating conflict in the Middle East, given international dependence on oil from this region. Rising tensions on the Korean peninsula could also undermine economic stability in North East Asia.

Ecological security is at stake when nuclear weapons are used, which could occur in the case of chaos and conflict in Pakistan and its vicinity. Physical security might be a problem if conflicts in the Middle East and Pakistan and their peripheries escalate. Especially if weapons of mass destruction were to be deployed, there would be large numbers of casualties. International social and political stability will be less affected. If the situation in the Middle East and Pakistan gets out of hand, any serious social and political consequences are likely to be limited to these areas.

#### Conclusion

The developments of the past year concerning the proliferation of weapons of mass destruction have demonstrated a degree of continuity with the 2012 Monitor. Despite this continuity, existing worrisome developments have intensified, as was the case with tensions regarding Iran's nuclear programme which have been rising. An Israeli attack on Iran would lead to a rise in tensions in the Middle East and the region and would affect global stability. In addition, the presence of chemical weapons in an unstable Syria remains a concern, and the stability of the regimes in North Korea and Pakistan is still uncertain. Looking ahead to the next five to ten years, there are therefore more uncertainties than probabilities. For example, it is uncertain whether the decline in support for the multilateral disarmament and non-proliferation regime will continue. Within the scenario framework, the theme 'proliferation' remains in the multilateral quadrant, despite developments in subthemes that are moving it towards the fragmentation and multipolar scenarios. During the next few years, efforts to combat proliferation are expected to be carried out mainly through multilateral channels. It remains unclear, however, whether sufficient agreement among the great powers can be reached on this point.