Introduction

According to a 2014 NPT working paper submitted by a group of mainly nuclear umbrella states (states that are not nuclear-weapon-states per se, but which in practice depend on nuclear weapons through military alliance arrangements with nuclear-weapon-states), ‘a focus on “building blocks” can complement the pursuit of a “step by step” approach’ to nuclear disarmament.1 Granted, it is not entirely clear how this complementation would take place, especially since the actual building blocks listed in the working paper seem synonymous with the ‘steps’ commonly regarded as included in the step-by-step approach. This includes, e.g., the negotiation of a fissile material treaty, entry-into-force of the Comprehensive Test-Ban Treaty (CTBT), legally binding security assurances, a return to substantive work in the Conference on Disarmament (CD), and strengthening the International Atomic Energy Agency (IAEA) nuclear safeguards system.

Nevertheless, the building block approach is not without added value. This is partly because the new metaphor is more relaxed in terms of sequencing than the original (at least rhetorically speaking), but mainly because the working paper

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1. A focus on building blocks invites an analysis of roles and responsibilities for the achievement and maintenance of a world without nuclear weapons.
2. States should recognize that they have different roles to play in the construction of the building blocks—all states need not be involved in all discussions on all aspects of nuclear disarmament.
3. Each building block should be carved out by a critical mass of ‘key implementers’, in a format that does not allow ‘blockers’ to prevent progress.
4. The categories of building blocks in which the nuclear-armed states are the ‘key implementers’ include ‘fissile material’, ‘security assurances’, and ‘de-alerting and dismantlement’.
5. ‘Breakout’, ‘nuclear-weapon-free zones’, and ‘prohibition’ are categories in which the non-nuclear-weapon states play the main role.
introduces the possibility of a certain division of labour when it comes to the construction of the different ‘blocks’. Different measures could presumably be designed and implemented by different configurations of states. While the maintenance of a nuclear-weapon-free world will need to be a multilateral endeavour, it is argued in the working paper, the mutually reinforcing building blocks necessary for effective disarmament need not be.

The building of blocks

The ‘building blocks’, although not explicitly defined in the working paper, can be understood as practical measures expected to bring the world closer to the goal of full nuclear disarmament. Examples of past building blocks range from the IAEA safeguards system to the Nuclear Non-Proliferation Treaty (NPT) itself.

Compared to the steps of the ‘step by step’ approach, the building blocks also invoke a certain creative, problem-solving spirit—implying that the answer to the nuclear disarmament puzzle could be found by shuffling the building blocks around long enough and trying different angles. That also makes the sequencing of the blocks less important, as it is fine to have movement on several fronts at the same time.

**Compared to the steps of the ‘step by step’ approach, the building blocks also invoke a certain creative, problem-solving spirit.**

In the working paper, a distinction is drawn between multilateral building blocks on the one hand, and ‘unilateral, bilateral and plurilateral actions’ on the other. This dichotomy is neither clear-cut nor particularly useful. For example, the list of non-multilateral building blocks includes a call for ‘promoting plurilateral or multilateral nuclear reduction negotiations’ (emphasis added), as well as for ‘promoting disarmament and non-proliferation education’. On the multilateral list, by contrast, there are calls for ‘all States possessing nuclear weapons’ to declare ‘moratoriums on the production of fissile material for nuclear weapons purposes’, which would appear to be a national-level measure in the first instance. An alternative, and perhaps more productive way to categorize the different building blocks, is by issue. Some blocks focus on ‘nuclear testing’, others on ‘fissile material’, and so on. Based on the list of building blocks presented in the working paper, combined with other practical measures called for in the broader multilateral discourse, a non-exhaustive list of issues could include the following: fissile material, testing, proliferation, security assurances, breakout/cheating, nuclear terrorism, limitation of geographical scope, nuclear-weapon-free zones, disarmament, security doctrines, and prohibition.

For each of these categories, at least one building block has either been implemented or proposed. For example, the category of ‘testing’ includes both the Partial Test-Ban Treaty (PTBT) and the CTBT. It would also cover unilateral measures such as test moratoriums declared by the nuclear-armed states (NAS).

Each category can in principle be reduced to a simple idea. The table in the middle of this paper lists each of the categories with an accompanying formulation of the core idea, as well as existing and proposed building blocks in each category.

Each building block is on some level designed to solve a problem—or at least part of a problem. As such, the success of a given building block ought to be measured by the effectiveness with which it serves its purpose. Did the NPT stop the proliferation of nuclear weapons? Not completely, but the NPT has been a relatively effective tool in terms of plugging the proverbial hole in the nuclear weapons dike. Some have (d)estimated that without the NPT, the number of nuclear-armed states in the world would be three or four times higher than it is today.\(^2\)

**IDENTIFY THE BUILDERS**

How did the NPT achieve this level of success? One notable lesson is that it is important to make sure a critical mass of key implementers take part in the shaping of the building block. Some readers may instinctively want to replace the word ‘implementers’ with ‘stakeholders’ in that sentence. But there is an important difference between the two. A stakeholder is someone with a stake in the outcome; an implementer is someone with a concrete role in the effective implementation of the regime. Usually an implementer is of course also a stakeholder, but it is not always the case the other way around.

This does not mean that stakeholders who do not have a concrete role to play in the implementation of a given regime are less interested in achieving results. On the contrary, these ‘non-implementers’ are often the keenest type of regime-builders. Nor does it mean that they are irrelevant. The point here is that their role is primarily one of normative consolidation, which is an important element in the universalization process for most regimes. But it is not necessarily a requirement for its construction and implementation.

For the success of a given building block—that is, the ability to generate the normative pull necessary to put the regime on a long-term path towards full adherence—‘implementers’ are arguably much more important than to have involved from the beginning than ‘consolidators’.

**AVOID THE RIGHT TO VETO**

A further lesson to be drawn from the list of existing building blocks is that if a critical mass of key implementers does not exist in the beginning, a format must be chosen that allows for this to happen. In plain terms: ‘blockers’ should not be allowed to veto attempts at making progress. This means, for example, that as long as the CD continues to equate ‘consensus’ with ‘veto’, the forum will not be conducive to the negotiation of further building blocks. After a deadlock of nearly two decades, even patient observers have begun to despair of the chronic unproductiveness of that body and have turned their attention elsewhere.\(^6\)

For some supporters of the principle of multilateralism in international diplomacy, the United Nations General Assembly (UNGA) is the preferred alternative to negotiations in the CD. With the adoption of the Arms Trade Treaty (ATT) in 2013, the UNGA showed that it was possible to achieve real results while remaining within the symbolic
walls of the United Nations system. The process of getting there, however, is not something the co-sponsors of the annual UNGA-resolution on the promotion of multilateralism should speak too boldly about. This is because, in the end, the decision-making procedures of the ATT process turned out to be as schizophrenic as those of the CTBT: consensus-based until the bitter end, after which a simple majority in the UNGA would suffice.

As a precedent, the ATT is in fact highly problematic. In the long run, the logic of the ‘UNGA fall-back option’ means that any negotiation process in practice will be seen to have a simple majority adoption threshold, which is a much weaker basis for developing international law than the two-thirds majority requirement of the Vienna Convention on the Law of Treaties.6

The challenge of choosing the most favourable format for the construction of the building blocks is not first and foremost a question of venue, how-ever. Nor is it about the simple versus qualified majority threshold. A two-thirds majority might be preferable to a simple majority in terms of legitimacy, but if the key catalyst for progress is a critical mass of interested states, then the only procedural requirement necessary is to stay clear of any form of veto privileges.

SEARCH FOR CRITICAL MASS

Finally, this begs the question of how to define ‘critical mass’. In nuclear physics, critical mass refers to the ‘minimum amount of concentrated fissionable material required to sustain a chain reaction’.7 In the construction of building blocks, it can be understood as the minimum number of states required to credibly construct a given measure for disarmament. The credibility aspect is central, since that largely determines the eventual success of the building block.

Importantly, critical mass in physics can be calculated in advance with certainty—critical mass in crafting of building blocks cannot. It is all a game of perception, until hindsight can decide whether or not it worked. Also, the actual number of states is in many ways less salient than the credibility they can muster. In bilateral arms nego-tiations between the United States and Russia, 2 states would constitute a ‘credible’ number—a critical mass. For the negotiation of the NPT, the number was 18.8 Could the NPT have been negotiated with only two states? Almost certainly not. Would it have been enough with 10 or 12 states? We will never know. Critical mass is about the perception of credibility, not the counting of states.

In sum, the lessons from some of the existing building blocks suggest that when carving out new practical measures for disarmament, two elements are needed: 1) a critical mass of key implementers, and 2) a format that does not allow ‘blockers’ to prevent progress.

Who should carve out the building blocks?

With this in mind, how should states approach the list of proposed building blocks? The fourth column in the table on the next two pages outlines some of the proposed building blocks. On top of the list is a treaty banning fissile material for weapons, usually referred to as a Fissile Material Cut-off Treaty (FMCT).

FISSILE MATERIAL

The idea of a prohibition on the production of fissile material has been on the agenda of the CD for years, but due to a fundamental disagreement between some of the key implementers about the purpose of the building block, it is unclear when negotiations on such a treaty will begin—if at all.

How could this be solved? According to the principles discussed above, the FMCT should first of all be negotiated primarily between the states that have nuclear weapons, since these states would be the key implementers of the treaty. For the vast majority of the United Nations member states (or CD members), weapons-grade fissile material is already prohibited under the NPT. And to the extent these states have access to such materials, it is subject to strict IAEA safeguards.

Secondly, if a critical mass of key implementers are interested in taking this idea forward, they should consider moving the discussion to a format where this could realistically happen—which in practice would mean taking it out of the CD. Everyone else—the NNWS—should simply step back and let the NAS negotiate a treaty on fissile material on a plurilateral basis.9

SECURITY ASSURANCES

A similar conclusion could be drawn with respect to security assurances. The demand from many of the NNWS is that the five nuclear-weapon states recognized by the NPT (the NPT5) accept legal obligations not to use nuclear weapons against a NNWS, possibly in the form of a treaty. Since only states with nuclear weapons can meaningfully undertake not to use them against NNWS, one could argue that legally binding security assurances could theoretically be given without NNWS taking part in the negotiations. On the other hand, the concept of security assurances does have a certain element of reciprocity built into it—the guarantees must be extended to someone. Depending on how the instrument is designed, the NNWS may therefore also have a certain role to play as implementers. However, what distinguishes the security assurances from other non-proliferation measures—including the NPT—is that they do not require any legal obligations to be placed on states that do not have nuclear weapons. The NNWS are simply passive recipients of the legal commitments of the NAS. They are clearly ‘consolidators’.

In practical terms, such a treaty would both reduce incentives for proliferation and consolidate the position of the NAS. Considering the non-proliferation effect of such an instrument, it is actually surprising that the NAS have not already come together and negotiated it. One reason why they have not is perhaps that it would require the NPT5 to recognize the nuclear-armed status of the non-NPT members.

DE-ALERTING AND DISMANTLEMENT

The proposed building blocks in the category of ‘de-alerting and dismantlement’ are also primarily a job for the NAS. The actual removal and de-struction of nuclear warheads can only be done by the states that have the weapons (though third parties could possibly have an implementer role in verifying dismantlement, the feasibility of which United Kingdom and Norway have been exploring in recent years). Between the NAS, dismantlement negotiations could either be bilateral (as with the New START) or plurilateral (involving all or most of the NAS). The dismantlement building blocks could even be crafted the way it was done by South Africa, the only country known to have unilaterally eliminated an entire existing nuclear arsenal. For the NNWS, what matters is that the disarmament obligations of the NAS are implemented, not how this is done.

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If all this should be left to the NAS, what is there to do for the NNWS? Should they just sit back and relax? As tempting as that may sound, a number of the categories in the table require all states to play a role. This includes the continued strengthening of the non-proliferation regime, the work to prevent nuclear terrorism (e.g. universalizing the International Convention on the Suppression of Acts of Terrorism, ICSANT), and the further limi-tation of geographical scope for nuclear weapons (e.g. by promoting work on a treaty on the Preven-tion of Arms Race in Outer Space, PAROS).

Secondly, the NNWS that are members of nucle-ar-armed security alliances each have an imple-menter responsibility when it comes to reducing the role of nuclear weapons in security doctrines (the ultimate category in the table). The most important building block in this regard would be the amendment of NATO’s strategic concept, which many members apparently interpret to mean that they must refrain from promoting any actual disarmament efforts, since that in practice would undermine their own defence doctrine.

Most importantly, however, there is a set of build-ing blocks that actually require the NNWS more than the NAS. As can be seen from the table, this includes three particular categories: breakout/ cheating, NWFZs, and prohibition.
OVERVIEW OF BUILDING BLOCKS FOR NUCLEAR DISARMAMENT

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>IDEA</th>
<th>EXISTING BUILDING BLOCKS</th>
<th>PROPOSED BUILDING BLOCKS</th>
<th>KEY IMPLEMENTERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fissile material</td>
<td>If all fissile material (weapons-grade) was destroyed, and no more produced, then no more nuclear armaments could be developed.</td>
<td>Through the NPT, the NNWS undertake ‘not to manufacture or otherwise acquire nuclear weapons’, which in practice also prohibits the manufacture of fissile material that can be used for those purposes. The Convention on the Physical Protection of Nuclear Material (COPPM), plus United Nations Security Council Resolution 1540 and the Nuclear Security Summits, all serve as mutually reinforcing building blocks to secure all fissile material.</td>
<td>A treaty banning fissile material for weapons: its content (e.g. whether it should include existing stocks) is contentious. Interim measures have also been suggested, including a moratorium and designation of unused material.</td>
<td>Nuclear-armed states. Fissile material is already prohibited for NNWS under the NPT, and monitored through International Atomic Energy Agency (IAEA) safeguards.</td>
</tr>
<tr>
<td>Testing</td>
<td>If testing of nuclear weapons was illegal, then it would be difficult for states which have nuclear weapons to improve them and for new states to develop them.</td>
<td>A Partial Test-Ban Treaty (PTBT) prohibits testing in the atmosphere. But crucially, it does not prohibit testing underground. The Comprehensive Test-Ban Treaty (CTBT) was intended to remedy this, but has failed victim to stringent entry-into-force requirements and will likely remain in non-binding limbo for the foreseeable future.</td>
<td>A treaty prohibiting all types of nuclear testing, namely a Comprehensive Test-Ban Treaty. This has already been negotiated and signed (1996), but its stringent entry-into-force requirements mean it is not likely to enter into force in the foreseeable future. Interim measures have been suggested, including a formal moratorium.</td>
<td>Primarily nuclear-armed states. Testing is explicitly prohibited for NNWS under the NPT, and explicitly prohibited for states under nuclear-weapon-free zone treaties.</td>
</tr>
<tr>
<td>Proliferation</td>
<td>If those who have nuclear weapons undertook not to share them with anyone, then the spread of the weapons could be contained and the problem could at least be prevented from getting worse.</td>
<td>The Nuclear Non-Proliferation Treaty (NPT) aims to stop the spread of nuclear weapons to more states. It recognizes the right to peaceful use of nuclear energy, and commits all parties to work towards general and complete disarmament. But the main purpose of the treaty is to prevent proliferation.</td>
<td>One possible building block that would strengthen the non-proliferation norm is an explicit prohibition on forward deployment of nuclear weapons. This could either be done through the NPT or as a separate instrument.</td>
<td>All states. The obligations under the NPT are reciprocal, and the treaty has established a strong norm against developing nuclear weapons—unless you have them already.</td>
</tr>
<tr>
<td>Security assurances</td>
<td>If states with nuclear weapons undertake never to use the weapons against states that do not have them, that would reduce incentives of NNWS to develop their own arsenals, and it would thus strengthen the non-proliferation norm.</td>
<td>No legally binding international treaty exists on security assurances, though unilateral declarations have been made by most of the nuclear-armed states. The United Nations Security Council has also been used as arena for issuing such assurances (notably in 1968 and 1995).</td>
<td>Proposably a new international legally binding instrument aimed at ensuring that nuclear weapons will not be used against NNWS. At the moment such a prospect is unlikely to materialize.</td>
<td>Primarily non-nuclear-armed states. Only states with nuclear weapons can meaningfully undertake not to use them against NNWS.</td>
</tr>
<tr>
<td>Breakout/Cheating</td>
<td>Nuclear weapons can only be abolished if states can be confident that no-one is cheating. Confidence-building and compliance measures to enforce the prohibition norm are therefore key.</td>
<td>The IAEA safeguards system is intended to provide states parties to the NPT with the necessary confidence in the effectiveness of the treaty. The safeguards system is only obligatory for the NNWS parties of the NPT, however.</td>
<td>Proposed additional building blocks include making an additional protocol of the IAEA safeguards agreement compulsory. This would allow for intrusive inspection on all NNWS, and thus increase confidence in the system.</td>
<td>Primarily non-nuclear-armed states, as you can only cheat if you don’t have the weapons in the first place. NPT safeguards are not required for the nuclear-armed parties to the NPT.</td>
</tr>
<tr>
<td>Nuclear terrorism</td>
<td>If all states ensured that they have laws and regulations in place to criminalize nuclear terrorism, this could reduce the probability of such events.</td>
<td>The International Convention on Suppression of Acts of Nuclear Terrorism (ICSANT) was negotiated to deal with this problem. It requires states parties to implement national legislation aimed at preventing nuclear terrorism.</td>
<td>No new building blocks proposed, except to universalize adherence to ICSANT.</td>
<td>All states. Scope limitation is generally not confined to nuclear weapons, and the NAS category is consequently not relevant.</td>
</tr>
<tr>
<td>Limitation of geographical scope</td>
<td>By declaring certain (unused) areas and spaces as being outside the realm of warfare and conflict, the nuclear arms-race could have at least some nominal physical limits.</td>
<td>The Outer Space Treaty, the Antarctic Treaty and the Sea- bed Arms Control Treaty all serve as mutually reinforcing building blocks, with scope limitation as the main purpose.</td>
<td>A treaty on the prevention on arms race in outer space has been proposed. The idea is to strengthen the existing regime based on the aging Outer Space Treaty.</td>
<td>All states. Scope limitation is generally not confined to nuclear weapons, and the NAS category is consequently not relevant.</td>
</tr>
<tr>
<td>Nuclear-weapons-free zones</td>
<td>If all the NNWS entered into regional prohibition treaties that went further than the NPT (and were underpinned by negative security assurances from the NPTs), this could both reduce the risk of breakout and also serve as a weapon-specific supplement to the ‘limitation of scope’ above.</td>
<td>Approximately 115 states are already part of nuclear-weapon-free zones (NWFZ), either through regional agreements or through unilateral declarations (Mongolia). The zones add to regional stability, but are not necessarily effective in terms of limiting the scope of nuclear weapons use and promoting nuclear disarmament globally.</td>
<td>More NWFZs are encouraged. The establishment of a zone free of WMDs in the Middle East was a central part of the agreement in 1995 to extend the NPT indefinitely. The prospects for this still look bleak. The Arctic and the Nordic regions are other areas where NWFZs have been proposed.</td>
<td>Primarily non-nuclear-armed states. NWFZ treaties are not designed as disarmament treaties, but as prohibition regimes. Of all the NWFZs, the African one is the only treaty to specify an obligation to disarm (due to South Africa’s nuclear weapons programme at the time).</td>
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<tr>
<td>De-alerting and dismantlement</td>
<td>Once all the nuclear-armed states have agreed—unilaterally, bilaterally or plurilaterally—to dismantle all their warheads and carried out that obligation, a legally binding instrument ensuring the maintenance of a world without nuclear weapons could quickly be negotiated and adopted, with universal support.</td>
<td>Existing building blocks in this category include all the bilateral arms control treaties between the United States and Russia (e.g. SALT, INF and START). The unilateral decision of South Africa to dismantle all its nuclear warheads and accede to the NPT is another example.</td>
<td>Further agreement on cuts in nuclear stockpiles, lowering of readiness, reductions in number of deployed weapons (strategic and non-strategic). In the current political climate, however, there is little hope for further progress on this front.</td>
<td>Nuclear-armed states. Only the states that have nuclear weapons can decide to de-alert and dismantle them, although non-nuclear-weapon states could possibly play assisting roles or provide technical expertise.</td>
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<td>Security doctrines</td>
<td>If the nuclear-armed states and their allies removed the nuclear option from their military doctrines, the political role of the weapons would be diminished. It would reduce proliferation incentives and could make disarmament easier.</td>
<td>The doctrinal role of nuclear weapons has been reduced since the height of the Cold War. For example, the United Kingdom’s nuclear weapons are allegedly no longer directed at a particular country or target. New Zealand’s rejection of the United States’ nuclear umbrella in the 1980s is another example.</td>
<td>NATO is currently the greatest obstacle to progress in scaling back nuclear security doctrines. One critically important building block in this regard would be the amendment of NATO’s strategic concept to allow member states to opt out of the nuclear umbrella, while still remaining in the alliance.</td>
<td>Nuclear-armed states and their allies, including the whole of NATO and states with bilateral security alliances with the United States (e.g. Japan and Australia).</td>
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<tr>
<td>Prohibition</td>
<td>If nuclear weapons were explicitly prohibited for all states, the incentives to maintain nuclear arsenals would be reduced. It could provide essential impetus to further disarmament measures.</td>
<td>A number of aspects of nuclear weapons are already prohibited, not least for the states that form part of NWFZ. However, no legal instrument with global scope exists today that explicitly and comprehensively prohibits nuclear weapons for all states parties.</td>
<td>A treaty banning nuclear weapons has been proposed as a building block. Support for the negotiation of such an instrument has been growing recently, and it currently looks like the most realistic next building block to be put in place.</td>
<td>Primarily states without nuclear weapons. The purpose of the prohibition regime would be similar to the NWFZ, but with global scope. It would most likely not contain disarmament provisions.</td>
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</table>
BREAKOUT

The idea of the ‘breakout’ category is that nuclear weapons can only be abolished if states can be confident that no one is cheating. Confidence-building and compliance measures to enforce the prohibition norm are therefore critical. The IAEA safeguards system is key to achieving this, but it has long been argued that there is need for stronger measures than what the NPT requires—providing greater assurance about both declared and possible undeclared nuclear activities. Specifically, there have been calls for making the additional protocol (AP) of the IAEA safeguards agreement compulsory. The Additional Protocol, which is a legal document concluded between a state and the IAEA, grants the IAEA complementary inspection authority to that required by the NPT.

Many see this type of assurance against breakout as critical in order to achieve the confidence necessary for the complete elimination of nuclear weapons. Still, nearly a third of the NPT states parties have yet to conclude an additional protocol to their IAEA safeguards agreements. One reason for this may be that many NNWS are reluctant to apply additional obligations while they perceive lack of progress on nuclear disarmament by the NPT nuclear-weapon states. Such a tit-for-tat mentality is unhelpful, however. Ideally, APs should be seen as of unambiguous value irrespective of the actions (or inaction) of the nuclear-armed states.

[Additional Protocols] should be seen as of unambiguous value irrespective of the actions (or inaction) of the nuclear-armed states.

NUCLEAR-WEAPON-FREE ZONES

The second category of building blocks in which NNWS are the key implementers is on NWFZs. The purpose of the regional prohibition treaties is to go further than the NPT and commit the states of a particular geographical region to a comprehensive prohibition of nuclear weapons. The NWFZ treaties are not disarmament treaties. They do not contain timelines and reduction targets. In fact, with the sole exception of the African zone (Pelindaba), the existing NWFZ treaties do not even include a requirement to dismantle nuclear stockpiles.

The only reason NPT5 have had roles at all with regards to these building blocks is because of the curious decision to add protocols on negative security assurances to all the zone treaties. Perhaps the intention was to lure the NPT5 into a legal commitment on negative security assurance that they otherwise would not have agreed to. The result, however, has been that few of the NWFZs have been recognized by all of the NPT5.

For the proposed zone in the Middle East, the implication of all this would be that in order to get a treaty negotiated, a critical mass of key implementers—perhaps the NNWS in the region—should join together in a format that allows the states most interested in progress to move forward, even if that means leaving some states behind. A WMD-free zone in the Middle East that includes a critical mass of key implementers is clearly better than no zone at all. And contrary to what some may think, it would not simply let the others off the hook. The treaty of Tlatelolco is an important example in this regard. If the states in Latin America and the Caribbean had waited for all the states in the region to be ready, it would have taken more than 30 years to get started on the negotiations of the Tlatelolco treaty.

PROHIBITION

The third and final building block category in which NNWS can be considered the key implementers is the one called ‘prohibition’. The core idea is that if nuclear weapons were explicitly prohibited for all states, the incentives to maintain nuclear arsenals would be reduced, which in turn would provide essential impetus for further disarmament measures. The logic is the same as for the NWFZ, namely to negotiate a treaty that goes beyond the obligations of the NPT and the CTBT. But contrary to the NWFZs, a global prohibition treaty would be open to all states.

The core idea is that if nuclear weapons were explicitly prohibited for all states, the incentives to maintain nuclear arsenals would be reduced, which in turn would provide essential impetus for further disarmament measures.

The main purpose of this building block is to put in place a comprehensive prohibition for nuclear weapons—or to fill the ‘legal gap’ in the regime governing weapons of mass destruction (biological and chemical weapons are already banned). In view of this, such a treaty would most likely not contain any disarmament provisions or timelines. In fact, even if a number of NAS decided to join the negotiations, one could argue that the treaty should still not contain specific disarmament obligations. For that is not the purpose of the building block, and such a treaty would require a different set of key implementers. The dismantlement of nuclear weapons should instead be left for the NAS to sort out between themselves—unilaterally, bilaterally or plurilaterally. The role of the NNWS is simply to create the incentives that will make the NAS decide to move in that direction.

While the building blocks presented in this paper are divided according to issue, there is of course nothing that prevents the key implementers from combining across different categories. If, for example, the NAS concluded that ‘fissile material’, ‘security assurances’, and ‘de-alerting and dismantlement’ could all be dealt with in one big potpourri of a treaty, that could possibly be more efficient than to negotiate three or four separate instruments.

Similarly, if the NNWS decide that ‘breakout/cheating’ and ‘prohibition’ could be mixed together, the resulting instrument would most likely benefit from the merger. That would in fact make it a ‘maintenance’ instrument, which eventually—should it one day achieve full adherence—would serve as the new cornerstone of the legal framework regulating nuclear weapons internationally.

Conclusion

The focus on building blocks introduced in the 2014 NPT working paper discussed here is a welcome contribution to the debate on how to move the world closer to zero nuclear weapons. As a supplement to the more established step-by-step approach it adds flexibility in terms of sequencing of the different practical measures for disarmament. More importantly, it invites an analysis of the roles and responsibilities associated with the crafting and implementation of the different building blocks, basically suggesting that all states need not necessarily be involved in all discussions on all aspects of nuclear disarmament.

The argument made in this paper is that a set of ‘key implementers’ can be identified for each category of building blocks, and that in order to ensure that a building block becomes effective and relevant, you basically need two things: 1) a critical mass of interested implementers, and 2) a format that does not allow ‘blockers’ to prevent progress. The existing building blocks identified in the working paper provide important lessons in this regard, such as the NPT, as one examplary case. It serves to illustrate that in the construction of new building blocks implementers are more important than consolidators. Secondly, the choice of format is key to securing progress.

By analysing the basic idea and purpose of each category of building blocks, it is possible to identify the key implementers for each measure. From the total of eleven categories listed in the table on page 6 and 7, the NAS are seen as key implementers for five of them (dismantlement, fissile material, security assurances, security doctrines, and testing), while the NNWS are considered key implementers for these categories (breakout/cheating, NWFZ, and prohibition). The rest (proliferation, nuclear terrorism, and limitation
of geographical scope) are identified as a shared responsibility among all states. In addition, nuclear umbrella states are singled out as a particular group of key implementers when it comes to reducing the role of nuclear weapons in security doctrines.

This leads to the following conclusion: The sooner states accept that they must play different roles to complete different parts of the nuclear disarmament puzzle, the sooner we may see progress on the construction and implementation of the building blocks needed to nudge humanity closer to the peace and security of a world without any nuclear weapons.

Endnotes
1 Working Paper 23 of April 15, 2014 (NPT/CONF.2015/PC.III/WP.23), paragraph 2. Submitted by Australia, Belgium, Canada, Colombia, Czech Republic, Denmark, Estonia, Finland, Germany, Hungary, Italy, Japan, Lithuania, Netherlands, Poland, Portugal, Slovakia, Spain, Sweden and Ukraine.
2 Ibid, paragraph 6.
3 Ibid, paragraph 6.
4 Ibid, paragraph 5.
8 See: http://www.nti.org/glossary.
9 The NPT was negotiated by the Eighteen Nation Disarmament Committee (ENDC), a forerunner to the current CD.
10 A United Nations-mandated Group of Governmental Experts is to present its report in 2015 containing recommendations on aspects of a treaty banning fissile material for nuclear weapons. What it has to say on this question will be interesting: http://www.un.org/80256EE600585943/(httpPages)/B8A3B48A3FB71b5EC1257B28045D6E3?OpenDocument.
The International Law and Policy Institute (ILPI) and the United Nations Institute for Disarmament Research (UNIDIR) produced this series of briefing papers to coincide with the 2015 Review Conference of the Nuclear Non-Proliferation Treaty:

1. **NICK RITCHIE**, The humanitarian initiative in 2015: expectations are building for the need for nuclear disarmament progress.

2. **NOBUO HAYASHI**, On the ethics of nuclear weapons: framing a political consensus on the unacceptability of nuclear weapons.

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