After the NPT Review Conference: all is not lost

On the warm New York evening of 22 May 2015, a four-week long review of the 1968 Nuclear Non-Proliferation Treaty (NPT) ended in disagreement. In the weeks that followed, commentators disagreed on why the meeting had failed. Mr Greg Mello, a campaigner, pinned conference failure on a growing divide between nuclear and non-nuclear weapon states. 'Operatively speaking,' he wrote, 'Article VI is dead.' Mr Chris Ford, a former US diplomat, greeted the outcome with a shrug. 'Neither RevCon success nor failure,' he told a conference in Los Alamos, 'correlates meaningfully with anything important in the real world.'

The review conference—like other treaty meetings—is simply a reflection of the policies and concerns of the treaty membership. From that perspective, whether a final document without legal status is agreed is trivial. However, what the month-long debate in New York means for future policy is significant, and cannot be greeted with a shrug.

Disarmament setbacks

The outlook for disarmament is markedly bleaker today than it was five years ago. In an article published in June, the *Wall Street Journal* opined that US President Obama's legacy on nuclear arms control is now 'hanging in the balance.' Relations between Russia and the United States continue to decay, and the former has made no secret that it desires to strengthen its nuclear deterrent, not weaken it. But despite cooling relations between the two powers, the shadow of a resurgent nuclear threat barely made it into the conference proceedings, and it was certainly not the reason for the meeting's ultimate breakdown.

Instead, the conference foundered over disagreement on how and when to convene a regional meeting on a WMD-free zone in the Middle East. In the final plenary, member states stated their preparedness to join the consensus on other parts of the draft final document.

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Verification Research, Training

tel +44 (0)20 7065 0880 *fax* +44 (0)20 7065 0890 *website* www.vertic.org The carefully crafted draft conclusion would have provided a good platform for future work—and was probably the best anyone could have hoped for in the present political climate.

Much constructive language, however, was sacrificed on the altar of the Middle East. The conference would have welcomed efforts developing nuclear disarmament verification capabilities—work introduced by the United Kingdom 15 years ago (see *Trust & Verify* No. 92). Treaty members would have continued to approve of work conducted under the socalled UK-Norway Initiative (facilitated by VERTIC some 10 years ago). State parties would have also approved a new US-led 'International Partnership on Nuclear Disarmament Verification', designed to foster international collaboration on this matter. Moreover, work by the nuclear weapon states to come up with joint terminology for future disarmament efforts would have been recognised, but will now remain unacknowledged.

Putting these acknowledgements and expressions of support aside, a key loss was the list of 19 concrete benchmarks and timelines proposed in the draft final document. The benchmarks would have encouraged the nuclear weapon states to intensify their discussions on definitions and terminology related to nuclear weapons. They would also have encouraged all states to intensify efforts to develop nuclear disarmament verification capabilities—for the first time ever taking into account the role of the International Atomic Energy Agency in this effort. Over the last few years, member states have slowly come to recognise this organisation's role in future disarmament efforts. Having had the conference acknowledge its potential would have been beneficial for those working to strengthen its capacity to engage.

The prohibition on nuclear testing contained in the Comprehensive Nuclear-Test-Ban Treaty (CTBT) would also have received a stimulus. Parties would have committed to refrain from carrying out any other action that would defeat the object and purpose of the treaty. This would have represented the strongest expression of support for the test-ban in several years. Moreover, the final document would have called on the eight remaining CTBT hold-out states to sign and ratify without delay and, importantly, without waiting for any other country to do so. It is unfortunate not to have a consensus-based final document to orient the coming five years' work around. Some worthwhile initiatives may now be axed, as funders re-prioritise and member states lose interest. But having no final document also carries with it opportunity. A wealth of initiatives—both political (such as Global Zero: the complete abolition movement) and technical (such as the UK-Norway Initiative)—sprung up in the wake of the collapsed 2005 review conference, and those all contributed to the positive result of its successor five years later.

However, this time around, there is a risk that a segment of the international community will set off down an exclusive path. Campaign groups are hankering for states to start negotiations on a treaty banning nuclear weapons, but do not seem keen to involve states possessing those weapons in the process. This would be a mistake. The priorities of the international community should be focused firmly on establishing fundamental conditions for complete nuclear disarmament. This means committing themselves to strengthening those multilateral institutions, such as the IAEA, that incorporates nearly all nuclear-armed states, and would monitor a world free of nuclear weapons.

Holding the line on safeguards

The atmosphere surrounding the IAEA's system of safeguards (which verifies NPT states parties' obligations not to proliferate nuclear weapons) was perhaps more rosy than that surrounding disarmament. The joint EU3+3/Iran statement on the parameters for a 'Joint Comprehensive Plan of Action' addressing Iranian proliferation concerns—coming only three weeks before the conference—suggests there might be a light at the end of the tunnel for the long-running dispute between Iran and the IAEA. With it comes an indication that Iran may have accepted the importance of the IAEA's Additional Protocol in demonstrating compliance with the NPT.

Nevertheless, it was clear before the conference that Main Committee II (MCII) could not rely on this light to spur on a consensus statement on non-proliferation under the NPT. The IAEA's holistic 'State Level Approach' to streamlining the implementation of its safeguards has never been fully accepted within the agency's policy-making organs in Vienna, and an endorsement in New York was unlikely. Russia has long been a spanner in the works of the agency's efforts to expand the implementation of this concept, and the fallout over the application of safeguards to a research reactor in disputed Crimea suggested that Russia was unlikely to remove this spanner in MCII.

Perhaps more worryingly, a working paper from the Non-Aligned Movement also suggested that they were not prepared to let states parties cement the IAEA's Additional Protocol as the new 'standard' for nuclear safeguards. By stressing that 'efforts aimed at nuclear non-proliferation must be parallel to simultaneous efforts aiming at nuclear disarmament', the NAM were making it clear that without successes on the latter, there would be none on the former either.

With this in mind, one might forgive MCII for relying primarily on tried and tested language from the 2010 Review Conference and the 2014 IAEA General Conference to smooth feathers that might otherwise be ruffled by ambitious plans for the future of non-proliferation verification. The last document produced by MCII had 23 paragraphs on IAEA safeguards: five of these were substantively new; most of the remainder repeated well-trodden ground.

This is not to say that progress was never on the cards. Tweaks to old language strengthened calls to remedy cases of safeguards non-compliance and reinforced the position of the Additional Protocol as an 'integral' part of the IAEA's safeguards system. Similarly, a neat modification to old language in the MCII working paper would have reminded Iran that once it provisionally applies an Additional Protocol, it would be legally bound to implement it.

Despite all the potential arguments over the adjusted language described above, consensus in MCII was ultimately derailed by attempts to expand the discussion of non-compliance from non-proliferation to include 'non-compliance' with disarmament obligations as well. While the majority of NPT member states link progress on non-proliferation to progress on disarmament in principle, in practice the two are discussed separately in their respective committees and subsidiary bodies. For many in MCII, blurring the practical boundaries between their forum and MCI (the disarmament committee) was a step too far. Ultimately, the discussions of MCII were transmitted to the conference plenary in the form of a nonconsensus working paper, and many of the novelties described above were stripped from the Chair's Draft Final Document.

While there is no consensus Final Document from which to move forward, the reliance on familiar language from 2010 is not necessarily a step back. Instead, discussions of IAEA safeguards in New York seem to be on hold until more tangible progress on disarmament is made. This does not mean that progress cannot be made elsewhere. Vienna is a long way from New York, and the upcoming IAEA General Conference presents an opportunity to galvanise support for universalisation of the AP and the expansion of the State-Level Approach.

Consolidating progress on nuclear security

Another issue discussed within Main Committee II was nuclear security, which focuses on the prevention and detection of, and response to, criminal or intentional unauthorised acts involving or directed at nuclear material, other radioactive material, associated facilities, or associated activities.

Important developments related to nuclear security have taken place since the last review conference in 2010, including the 2012 and 2014 Nuclear Security Summits (NSS) in Seoul and The Hague and the 2013 IAEA international conference on nuclear security in Vienna. Despite this momentum, the RevCon discussions on nuclear security raised nothing exceptionally new. The language and debates reflected in the nine dedicated paragraphs in the draft final document unsurprisingly echo those read and heard many times at the IAEA General Conference.

Reference to initiatives and instruments taking place and negotiated outside of inclusive multilateral fora was a particularly contentious point. States such as Cuba, Egypt, Iran and Syria refused to 'welcome' the contributions made by the NSS process, denouncing their limited invite list and lack of legitimacy. In paragraph 47 of the draft final document, the conference therefore 'notes the role that international processes and initiatives, including the Nuclear Security Summits, could play in the area of nuclear security,' paraphrasing a preambular paragraph of the resolution on nuclear security adopted by the IAEA General Conference in 2014. For similar reasons, there is no explicit mention of UN Security Council resolution 1540—which requires all states to take domestic measures to prevent the proliferation of WMD by non-state actors. While MC II's chair working paper mentioned 'the obligation of all states to implement fully the United Nation Security Council resolution 1540 (2004),' the draft final document refers to 'the obligations of all states to implement fully the relevant United Nations Security Council resolutions and also recalls the relevant resolutions of the United Nations General Assembly.'

The review process thus highlighted persistent objections, but also showed consolidation of previous nuclear security achievements. In paragraph 40 of the draft final document, the conference 'stresses the importance of effective physical protection of all nuclear material and nuclear facilities.' This seems to implicitly cover nuclear material in both peaceful and military uses. The ministerial declaration adopted at the 2013 IAEA conference and The Hague NSS communiqué were more explicit on this aspect, as they respectively mentioned 'nuclear material used for military purposes' and 'nuclear materials used in nuclear weapons.' A working paper submitted by the Vienna Group of Ten (a group of ten likeminded NNWS) suggested that the conference should call upon 'states that possess nuclear weapons to undertake voluntary measures to increase transparency and confidence in the effectiveness of security for military nuclear materials'. Unfortunately, the conference disagreed.

Besides this, 2015 marks the anniversary of both the Amendment to the Convention on the Physical Protection of Nuclear Material (CPPNM) and the International Convention for the Suppression of Acts of Nuclear Terrorism (ICSANT). Fittingly, NPT states parties also agreed on the need to strengthen the legal framework for nuclear security. Paragraph 43 of the draft final document encourages adherence to the CPPNM and calls upon its parties to ratify its amendment; paragraph 46 encourages states that have not yet done so to become parties to ICSANT.

Finally, states parties expressed support for the central role of the IAEA in strengthening the nuclear security framework globally and in coordinating international activities in the field. Admittedly, the upcoming 2016 NSS organised by the United States will keep part of the nuclear security discussions outside of the agency. However, the review conference was an opportunity to reaffirm that after the NSS, 'it is important that a platform is retained to continue the substantial work done so far', as noted by Switzerland in its statement to MCII on nuclear security. 'Given its expertise and almost universal composition,' Switzerland went on to say, 'the IAEA is the most suitable forum for a task of this kind, and for coordinating the other efforts being made in this area'.

Less finger-pointing, please

In December 2010, the annual Wilton Park conference on disarmament and non-proliferation concluded that the success of the previous review cycle had been driven 'by a desire to rejuvenate the NPT and allow groups of states directly involved to drive actions forward in ways that the four decade old structure to prevent proliferation appears incapable of handling.'

It was clear from 2012 and the start of the review cycle up to 2015 that the issue of the Middle East would dominate the debate, and potentially lead to stalemate at its end. But it also became clear that the international community started to yet again pull apart on the issues. The spirit of cooperation that prevailed in 2010 was replaced on all sides by campaigning and finger-pointing. Old and ugly divides over the pace of disarmament and the application of nuclear safeguards resurfaced as a result.

The next review cycle will start in 2017. Now is the time to assess what worked and did not work in 2015, and to orient efforts towards those aiming to achieve the treaty's self-professed long-term goal: a world free of nuclear weapons.

Hugh Chalmers, Sonia Drobysz and Andreas Persbo VERTIC



ber in New York, which will adopt the new UN post-2015 development agenda, and the UN Climate Change Conference in Paris in December, which is expected to conclude a new climate change agreement. Both have significant implications for monitoring and verification.

Verification Watch

Sustainable development: 2015 as a landmark year

This year is marked by the culmination of several major

international negotiating processes in the realm of sustain-

Joy Hyvarinen, London

New global Sustainable Development Goals are expected to form the centrepiece of the UN post-2015 development agenda. They succeed the Millennium Development Goals but there are significant differences. The Sustainable Development Goals will apply to all countries, rather than focusing mainly on developing states. In addition, they cover a much wider range of issues than the eight Millennium Development Goals.

The Sustainable Development Goals are not yet fully finalised—negotiations are under way in New York—but in their current, near-final form they consist of 17 overall goals, with 169 targets attached to the goals. The development of indicators for measuring progress has also begun, with the aim of adopting and beginning to apply the indicator framework in early 2016.

The broad scope of the Sustainable Development Goals is the main challenge to developing a monitoring framework. The goals cover a vast range of issues, including water, energy, agriculture, health, sustainable consumption and production, ecosystems, education, and inequality. Measuring progress will require the collection of large amounts of different types of data involving a host of metrics from across disciplines such as economics, social sciences, natural sciences, medicine and environmental science. (Research from 2009-2010 by VERTIC and Chatham House to develop and run indicators for progress on good governance in just one sector—timber production and trade—showed that the development and testing of indicators can require a considerable amount of time and technical work.) However, for many areas that the Sustainable Development Goals cover, indicators and data may already exist.

A new climate change agreement

Elsewhere, parties to the UN Framework Convention on Climate Change (UNFCCC) are aiming to adopt a new climate agreement this year, to be implemented from 2020. Many expect the Paris conference outcome to consist of a legally-binding core agreement containing general rules with the details, including what individual countries will do to combat climate change, set out in non-binding form.

The new agreement will be a 'bottom-up' accord, where individual countries determine their own emission reduction targets and plans. However, the expected contributions for Paris are not adding up to sufficient emission reductions to keep warming under 2°C (the currently agreed global goal) which many argue is itself inadequate.

A crucial question for the architects of the new climate agreement is how to incentivise countries to strengthen their emission reduction efforts in future cycles of renewed state contributions.

Transparency and trust are important factors. Countries need to be able to understand what other countries' targets and plans mean (for example, the assumptions that underlie them) and to what extent countries are making progress. International assessment of countries' efforts and of their effect as a whole on global emissions is also a critical issue to address in the negotiations. Prior to the Paris conference the UNFCCC secretariat will simply produce a synthesis report on the aggregate effect of the intended contributions that countries have communicated. In the future, countries' intended contributions and their total effect need greater scrutiny before being finalised. •

UK-Norway Initiative presents at NPT RevCon Alberto Muti, London

The 2015 NPT Review Conference presented nuclearweapon states (NWS) with a valuable opportunity to demonstrate their progress toward nuclear disarmament through reports, discussions and dedicated side-events. During two of these events, the governments of Norway and the United Kingdom provided an update on the progress and activities of the UK-Norway Initiative (UKNI). The initiative, established in 2007, aims to develop nuclear warhead dismantlement verification measures, and is particularly notable for involving both a NWS and a NNWS in the process, thus representing the interests and perspectives of both stakeholders.

The UKNI submitted a working paper to the conference, which outlined the work carried out since the 2010 Review Conference, dividing it into three main areas of research: managed access; information barriers; and confidence in the verification process. The latter two areas were the focus of the two UKNI side events.

The guiding principle behind the development of an information barrier system is to allow inspectors to identify an item as a nuclear weapon by interrogating some of its key physical attributes, delivering a qualitative 'yes/no' response without exposing classified or proliferative information. There are many technical challenges associated with designing such a system, as well as procedural challenges in building confidence between parties that such a system will work only as intended. The UKNI working paper notes that the initiative has produced a prototype information barrier, which has been tested in laboratory conditions on plutonium samples in 2012 and 2014. The initiative will publish a series of reports on its work on information barriers so far and on recommendations for future development later in 2015.

The UKNI's research on trust and confidence in the verification process started with a series of exercises simulating different stages of weapon dismantlement. Early exercises held in 2008, 2009 and 2010 raised significant questions on the concepts of trust and confidence, the paper notes, and how these are defined, quantified and measured. The UKNI, in partnership with King's College London, has explored these issues through a series of student exercises, starting in 2013 and involving students from several countries and academic institutions. The working paper reports that King's College London will conduct research on indicators of trust and confidence collected from exercise participants.

Some results were presented during the side event, as reported by campaign NGO Reaching Critical Will's publication *NPT News In Review*. These showed that confidence (defined as 'evidence-based judgment') featured prominently in inspectors' decision-making process. Trust (defined as 'expectations about another's motives and intentions') also seemed to play a role. For example, displays of openness and proactivity by the inspected party were seen as likely to positively influence inspectors, regardless of the material evidence found.

Looking at future work for the next review cycle, the UKNI plans to build on its findings in all its main research areas. Furthermore, it has invited the international community to engage in work on disarmament verification, aiming to share its expertise and to 'participate actively' in future international research. As the 2015 Review Conference closed without a consensus document, many remarked on the rift separating NWS and NNWS on a number of themes, including the approach to disarmament issues. The UKNI remains an important example of how members of these two groups can cooperate on disarmament despite this political context.



US and UK present on verification research cooperation David Cliff, London

As part of its array of side-events, the 2015 NPT Review Conference saw a presentation by the US and UK on a joint 15-year programme of technical work on nuclear arms control verification. The event included the release of a report on the work—the *Joint US-UK Report on Technical Cooperation for Arms Control*—which details the origin the project, work conducted under it, and lessons learned so far.

The report tells how the programme began in October 2000, following an approach to the US by the UK Ministry of Defence and Britain's Atomic Weapons Establishment (AWE). Since then, the programme has involved a string of managed access exercises held at nuclear facilities in both countries, a series of measurement and data analysis campaigns, and a number of expert workshops.

Four major managed access exercises were held in all, between 2002 and 2011. These sought to explore how monitoring teams might be permitted access to nuclear facilities within agreed limits and without compromising sensitive information not subject to monitoring provisions.

These exercises, the report notes, culminated in a Warhead Monitored Dismantlement Exercise held between mid-2010 and late 2011, during which the US and UK played fictitious countries negotiating 'an agreement and protocol containing basic provisions for mutual nuclear weapon reductions to be accomplished through monitored dismantlement.' It went as far as to include the monitored dismantlement at the AWE of a mock-up nuclear device containing actual fissile material and simulated high explosives.

Alongside these exercises, the two countries have been conducting joint demonstrations and analysis of measurement devices since 2001, in order to evaluate the application of such tools for potential nuclear warhead monitoring and verification. Six such measurement exercises were held between 2001 and 2014—some in the US, others in the UK. They included: demonstrations of potential radiation measurement techniques; 'blind' measurements of unknown target objects in sealed containers; blind measurements of classified and unclassified US objects; and measurements on a mock nuclear warhead.

All these exercises, says the report, were complemented by a series of expert workshops and meetings that have enabled US and British experts 'to develop a much deeper understanding of specific issues' and to 'collaborate to advance understanding and capabilities between specific exercises.'

Workshops have focused on a range of nuclear warhead verification issues and techniques. Some dealt with chainof-custody procedures—i.e. how to ensure seamless monitoring of an item, or set of items, as it undergoes a process such as dismantlement. Another workshop addressed socalled information barrier technology, the theory behind which being the ability of inspectors to take radiation measurements of classified objects while seeing only 'yes' or 'no' determinations based on a predetermined set of criteria.

Several workshops also focused on the difficult issue of equipment authentication—i.e. inspectors being sure that equipment is working as designed and has not been interfered with. One further workshop investigated the principles of monitored storage for warheads and what methods can and should be used in this.

The report notes that, currently, US-UK efforts are focused on two joint initiatives. One is the establishment of a comprehensive set of radiation signatures for nuclear warheads and warhead components that is designed to support further research into nuclear warhead verification. The other is the joint design, fabrication and construction of a 'Portal Monitor for Arms Control' that can be used in a nuclear weapons facility to complement work already done on certifying and authenticating equipment for use.

Programme News

Verification and Monitoring Programme

The Verification and Monitoring (VM) Programme has expanded and developed its portfolio of work over the past three months. The programme is condensing its work on the multilateral verification of nuclear disarmament into a series of publications that will serve as a platform for ongoing work in this area. It is also in the process of updating and reinforcing its capacity to assist IAEA member states with the implementation of nuclear safeguards. It is complementing this process by developing a database of national approaches to nuclear safeguards with support from the Carnegie Corporation of New York.

Acting Programme Director Larry MacFaul and Executive Director Andreas Persbo travelled to the 2015 Review Conference of the Treaty for the Non-Proliferation of Nuclear Weapons (NPT) in May to present upon the work of the Verification and Monitoring Programme. Mr MacFaul discussed the programme's work facilitating IAEA safeguards implementation amongst NPT members. His presentation focused on national implementation obligations contained in comprehensive safeguards agreements and the Additional Protocol. It advertised VERTIC's ability to offer tailored assistance complementary to other tools and programmes available, by the IAEA and others, to strengthen implementation of nuclear safeguards.

Mr Persbo and Mr MacFaul gave a second presentation later during the conference on the Verification and Monitoring Programme's work on multilateral approaches to verifying nuclear disarmament. Mr MacFaul presented responses to a VERTIC questionnaire on attitudes towards a potential IAEA role in verifying disarmament. The presentation argued that data gathered so far indicates that there is support for the IAEA adding disarmament verification to its portfolio. Mr Persbo went on to describe the virtual, simulated environments the VM programme is currently developing as a scenario-based tool to enable states to participate and learn about nuclear disarmament verification. Over the past three months, the VM programme has also returned to issues of environmental monitoring by producing briefing papers on monitoring of the Sustainable Development Goals currently under development. •

National Implementation Programme

During this quarter, the NIM Programme remotely reviewed an African state's bill to implement the Chemical Weapons Convention (CWC) and analysed how another country in the region is implementing both the CWC as well as the Biological Weapons Convention (BWC) through legislation surveys. In addition, it completed Spanish-language legislation surveys on the national implementation of certain international instruments related to nuclear security for two Latin American states.

On 6 May, NIM Programme Director Scott Spence attended the event 'Chemical Weapons: Abandoned Relic or Ticking Time Bomb?' at the Graduate Institute in Geneva. From 11-15 May, Legal Officer Dr Sonia Drobysz and Mr Spence attended the 2015 Review Conference of the Nuclear Non-Proliferation Treaty at the headquarters of the United Nations in New York (pictured). Mr Spence presented on the 'National Legislation Implementation Kit on Nuclear Security' during VERTIC's side event on 12 May, while Dr Drobysz chaired VERTIC's side event on nuclear disarmament verification on 15 May.

Mr Spence attended the Global Health Histories Seminar on chemical and biological weapons at the World Health Organization on 21 May as well as the Second Warsaw Conference on reducing chemical threats and enhancing chemical safety and security in Warsaw, Poland, on 28 May. From 15-19 June, Senior Legal Officer Yasemin Balci and Mr Spence conducted VERTIC's fourth and final visit to Cambodia and the Philippines to discuss developments on their CBRN draft legislation under EU CBRN Centres of Excellence Project 8, for which VERTIC has been the lead organisation.

On 18 June, Dr Drobysz presented on the International Atomic Energy Agency's role in human security during a conference on 'Nuclear Weapons and Human Security' at the International Institute of Humanitarian Law in San Remo, Italy. On 29 June, Mr Spence participated in a meeting of the Steering Group of the Global Health Security Agenda at the headquarters of the World Organisation for Animal Health (OIE) in Paris. During 29 and 30 June Dr Drobysz also participated in and presented at a regional workshop on effective practices in the implementation of UNSCR 1540, organized by UNODA, the Centre for Security Cooperation (RACVIAC) and the Croatia Ministry of Foreign and European Affairs in Rakitje, Croatia.



UN Headquarters, New York (UN Photo/Rick Bajornas via Flickr)

Publications News

This autumn will see the VM team release three publications related to its project on multilateral nuclear disarmament verification. One will be a 'primer'on the role of the International Atomic Energy Agency in nuclear disarmament verification, looking at what involvement in such activities it has had to date and what more could be envisaged in the future. The second publication, a research compendium, will present the comprehensive results of VERTIC's work under this project since it began. The third will present the results of a VERTIC survey of IAEA member states' views on the agency's involvement in disarmament verification. This survey was conducted by VERTIC from mid-late 2014. The autumn will also see the release of VERTIC's new publication Verification & Implementation—a biannual yearbook. The VM team also recently released VERTIC Brief 23: 'Above and Beyond: IAEA Verification in Iran'. The brief examines the parameters of a Joint Comprehensive Plan of Action' announced by the EU3+3 and Iran, and discusses the verification tasks such a deal would present to the IAEA.

Verification Quotes

The Conference encourages all States, including in cooperation with international organisations and civil society, to pursue and intensify efforts to develop nuclear disarmament verification capabilities, taking into account he role of the International Atomic Energy Agency in the area of verification, that will be required to provide assurance of compliance with nuclear disarmament agreements for the achievement and maintenance of a world without nuclear weapons. Language from the draft Final Document of the 2015 NPT Review Conference. The document was not adopted by the conference, with the meeting ending in disagreement over, among other matters, progress on nuclear disarmament and the fate of a Weapons of Mass Destruction-Free Zone in the Middle East.

The International Atomic Energy Agency's powers of inspection, verification and reporting on global proliferation risks must also be strengthened. In this context, we welcome initiatives to develop a better understanding of the complexities of international nuclear disarmament verification. Statement on the Humanitarian Consequences of Nuclear Weapons Statement by H.E. Gillian Bird Ambassador and Permanent Representative of Australia to the United Nations, 30 April.

Any climate change agreement in Paris must ensure that countries actually implement the emissions cuts they commit to. The final accord must agree to a regular review mechanism, full transparency of data and an ability to supplement the Paris agreement with further climatechange action as necessary. Much of the world seems oblivious to international treaty law, but it does respond to concrete environmental action based on that law. Kevin Rudd, former Australian prime minister, speaks about his hopes for the Paris climate change conference, to be held in December, and what verification provisions must be part of any final deal, 26 May.

Grants and administration

Cervando Banuelos completed a successful internship with VERTIC in May. He will begin a course in cybersecurity at the United States Naval Postgraduate School in Monterey, California, this summer. VERTIC wishes him well.

VERTIC is seeking interns for the summer and autumn—in particular, students with experience in law. Internships are best suited for students who are studying for or have completed a Master's degree, and run for an average of three months. Information about the internship and instructions for applying are available on the VERTIC website.

VERTIC is also pleased to announce a new funding agreement with the Earth Innovation Institute in California. This grant will further fund VERTIC's growing environment work with Joy Hyvarinen. This project will begin in December 2015. •

ouilding trust through verification

VERTIC is an independent, not-for-profit non-governmental organisation. Our mission is to support the development, implementation and effectiveness of international agreements and related regional and national initiatives, with particular attention to issues of monitoring, review, legislation and verification. We conduct research, analysis and provide expert advice and information to governments and other stakeholders. We also provide support through capacity building, training, legislative assistance and cooperation.

PERSONNEL Mr Andreas Persbo, Executive Director; Ms Angela Woodward, Deputy Director; Dr David Keir, Programme Director; Mr Scott Spence, Programme Director; Mr Larry MacFaul, Senior Researcher, Editor-In-Chief for VERTIC publications; Ms Yasemin Balci, Legal Officer; Mr David Cliff, Researcher; Dr Sonia Drobysz, Legal Officer; Mr Hugh Chalmers, Researcher; Ms Katherine Tajer, Administrator/Research Assistant; Mr Russell Moul, Researcher; Mr Alberto Muti, Researcher; Dr Miguel Sousa Ferro, Volunteer Consultant (2014-2015); Mr Cervando Banuelos II, Intern (February-May 2015).

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