The Council of the Pugwash Conferences on Science and World Affairs reaffirms its commitment to a world free of nuclear weapons. The Council calls for nuclear disarmament by all countries that possess nuclear weapons. The Pugwash Council urges the peaceful resolution of conflict in areas where nuclear risks are present. Dialogue is essential if we are to overcome the walls that divide people, countries, religions, and ideas. Disarmament—particularly nuclear disarmament, arms control, and military and non-military confidence-building measures are powerful instruments in creating a more peaceful and secure world.

Today’s dynamic international environment shows the continuing relevance of the ‘new thinking’ called for in the 1955 Russell Einstein Manifesto. This new thinking must be based on democratic people-centered values. Democratization, equality, justice, the rule of law, mutual respect and an increasing recognition of sustainable people-centered policies should emerge as the dominant trends in national and global governance. This must be encouraged in all possible ways.

Existing nuclear arsenals, with more than 20,000 nuclear weapons, remain one of the greatest security threats facing world society. In the absence of further serious moves toward nuclear disarmament, proliferation is made more likely. Emerging challenges, including the possibility of nuclear terrorism by non-state actors, have further complicated the security environment.

The Pugwash Council urges that significant and visible steps to reduce the number and salience of nuclear weapons begin immediately. The Council calls for further clear and strong signals of political will, well beyond the important achievements of New START and the results of the 2010 NPT Review Conference. Meaningful and sustainable progress towards the elimination of nuclear weapons cannot be achieved in isolation from other factors shaping the global military-political landscape.

The Pugwash Council notes with concern the continuing excessive world military expenditures and calls for concerted international efforts to combat the continued reliance on conventional weapons and war. We are on the brink of a wave of deployment of novel conventional military technologies which will have strategic implications and change the way war is fought, including conventional ICBMs, exo-atmospheric aircraft, robotic warfare, and new kinds of conventional warheads. Cyber-warfare is beginning to form part of military doctrines and war-fighting scenarios and to affect military command and control structures. In addition, the convergence of chemistry and biology, together with other related breakthroughs in science and technology will soon begin to challenge existing treaty regimes outlawing other weapons of mass destruction – chemical and biological.

The Council identifies measures urgently required for arms control and disarmament:

- Visible and strong further progress in the direction of nuclear disarmament by all states possessing nuclear weapons.
- Further deep-cuts of the nuclear arsenals of the United States and Russia.
• The entry into force of the Comprehensive Test Ban Treaty. To this end, all governments also should reaffirm their intention not to test nuclear weapons.

• The beginning of bona fide multilateral negotiations of a Fissile Material Cut Off Treaty.

• Agreement/s on assurances that all countries that do not possess nuclear weapons will not be attacked by nuclear weapons.

• Discussions on agreement/s banning the first use (or use) of nuclear weapons. All states should participate in these discussions, regardless of whether or not they possess nuclear weapons.

• Concrete work towards legally-binding universal agreement/s (such as a Nuclear Weapons Convention) banning the possession of nuclear weapons.

• Universal participation in the Chemical and Biological Weapons Conventions.

• Promotion of all efforts aimed at extending the Nuclear Non-Proliferation Treaty (NPT) to make it universal.

• Support by states for the ongoing negotiations for the Arms Trade Treaty, bearing in mind the increased transparency it will provide.

• Reaffirmation by states of their commitments to the non-weaponization of space and recognition of the challenges posed by further development and deployment of ballistic missile defense technologies and systems.

• Support for initiatives facilitating regional disarmament and security agreements such as the progress towards a WMD free zone in the Middle East, and the resumption of the Six Party Talks for the Korean Peninsula. Moreover other possible regional arms control initiatives and the establishment and the consolidation of nuclear weapons free zones should be promoted.

European Security and Nuclear Disarmament

There is an urgent need for new perspectives on the European security architecture and its core structures. This should be based on greater understanding of mutual threat perceptions, including the perspectives of ‘out of area’ countries. NATO as a nuclear alliance must demonstrate a commitment to reduce the salience of nuclear weapons. Political leaders should drive the NATO Defence and Deterrence Posture Review, encouraging maximum transparency and full engagement of the NATO-Russia Council. NATO doctrine should confirm that the only possible role of nuclear weapons is to deter a nuclear attack, as a step toward further reducing the salience of nuclear weapons and achieving a nuclear weapon free world. Vigorous efforts to establish a new foundation for the control and regulation of conventional forces and armaments are also required.

The Pugwash Council calls for the immediate removal of US nuclear weapons from Europe, and establishment of the principle that states with nuclear weapons should not base them on foreign soil. The concept of extended deterrence, the continued hosting of some 200 US B61 nuclear weapons in five NATO countries, upgrading nuclear arsenals, the possible deployment of dubious BMD technologies for some ill-defined threat, and continued reliance on so-called tactical nuclear weapons to countervail conventional inferiority are all working against decreasing the salience of nuclear weapons.
As we learn from the European Leadership Network for Multilateral Nuclear Disarmament and Non-Proliferation and others, the message from Europe about nuclear disarmament can be different from what we see now. Promoting vigorous European contributions to nuclear disarmament is not only relevant for the security and stability of Europe, but also for the effects that these contributions may have on the rest of the world, particularly on those countries that may feel that a nuclear capability will be required sooner or later to protect themselves.

**WMD and Nuclear Weapons in the Middle East**

Establishing a zone free of nuclear weapons and other weapons of mass destruction in the Middle East is a high priority for the region and crucial for the integrity of the Nuclear Nonproliferation Treaty. To facilitate progress, states should be more transparent and adopt a gradual but steadfast approach to the issue. Early on, small steps can build confidence, but substantive measures are urgent, such as ratification of the CTBT, cut-off of production of fissile materials for military uses, promotion of regional and international cooperation in the production of the nuclear fuel under the full supervision of the IAEA and possibly with the cooperation of other appropriate international organizations.

The Pugwash Council notes the 1 July 2011 statement of the “permanent five” of the UN Security Council (P5) which “welcomed the steps taken by the US, Russia and the UK towards holding a Conference on a Middle East WMD Free Zone (MEWMDFZ) in 2012,” and calls for more transparency on the steps mentioned. Deciding soon on a facilitator and host country can enable consultations leading to the convening of the conference. Further discussions must include definition of the scope, membership, and the general framework of such a zone.

**The Middle East**

There have been dramatic changes in the Middle East. Revolts against totalitarian and authoritarian regimes and in support of basic democratic freedom have spread with variable results. The Pugwash Council calls for more coherence in promoting the basic principles of democratic processes and removing the obstacles to their achievement.

With regard to the Israeli-Palestinian conflict, the Council notes some positive developments, such as the unity reached by the Palestinians. Despite some occasional improvements of the security situation on the ground, the prospects for the resolution of the conflict are far from promising. The occupation continues, Gaza remains under (partial) blockade, and Israeli settlements in the West Bank (and especially East Jerusalem) are expanding. The Council considers as important steps the international recognition of the Palestinian State and the pursuit of meaningful and effective negotiations between Israelis and the Palestinians.

**South Asia**

In South Asia, there is a long list of grievances and unresolved issues between the nuclear neighbors India and Pakistan. The significant trust deficit in the region must be overcome urgently to guard against the possibility that a future terrorist attack might initiate a train of events that could spin out of control. The Pugwash Council welcomes steps that can contribute to a counter narrative to conflict, including: further cooperation of legal, intelligence, military and governmental institutions (including, but not limited to, the fight against terrorism), facilitating cross-border communications (including allowing mobile phone roaming and media access of the other side’s television), easing people to people contacts (including across the Line of Control in Kashmir) and increased air travel between the two countries.
Afghanistan

The Pugwash Council recognizes the huge impact of ten years of war in Afghanistan, on the Afghan people and on regional stability. There is a general sense of fatigue in all the countries that sent military forces to Afghanistan. Life for ordinary Afghans is as dangerous and difficult as it has ever been, despite the economic aid that has been funneled into Afghanistan. This war has engaged, at great cost, 50 or so foreign countries and has yielded at best dubious results. Careful planning and dialogue are needed to ensure a political solution so that 2014 does not repeat the disastrous mistakes of 1989.

The Pugwash Council urges immediate exploration of how best to bring about peace in Afghanistan. There is no military solution to the Afghanistan problem; reconciliation talks with full transparency should be pursued by all stakeholders. Nearly everyone today is discussing the idea of talking to Talibans. Further thought is needed as to the modalities of such talks: who to engage, and where to hold talks. Engagement must be based on respect on all sides. Consideration should be given as to how to generate a plurality of initiatives, and the space for discussions among Afghans on the structure of the society that should come out from the reconciliation process. There is also scope for regional dialogue, involving countries surrounding Afghanistan, on these and related issues.

The Iranian Nuclear Program

Iran, unlike a few other Middle Eastern countries is a member of a large number of arms control treaties. Not only have increased sanctions and pressures proven to be largely ineffective in influencing the Iranian nuclear program, but these measures have instead opened space in the international debate for considering a possible military action against nuclear facilities in Iran.

The Pugwash Council urges a non-military solution and calls for an agreement that will put an end to this nuclear controversy. Any such agreement should imply no further discrimination (beyond what is already embedded in the NPT) on the right to conduct civilian nuclear activities while also providing for full and robust international monitoring by the IAEA or other appropriate international organizations of any nuclear activities in Iran and in any other country. We underline that there should be international cooperation in the field of nuclear energy, including the internationalization of nuclear fuel fabrication.

Fukushima

The Pugwash Council expresses its deep sympathy for the people of Japan and gratitude to those who are putting their own lives at risk to minimize further catastrophe. Noting this disaster occurred in a country that already has an advanced nuclear technological infrastructure, the Council urges all countries seeking nuclear energy to carefully reconsider the long-term responsibilities and risks (including proliferation risks). The Council is encouraged by the public debate in Japan which has forced reexamination of its nuclear power policies.

While all countries have a right to pursue peaceful uses of nuclear energy, this tragedy has reminded us all once again that the careless use of science and technology can create serious problems. It is, of course, up to each nation to decide, whether, and to which degree it wants to rely on nuclear energy for power generation, but such decisions must take into account the need to ensure maximum safety and security standards, long-term consequences and the legitimate concerns of other countries.

As citizens around the world ask difficult questions about the future of nuclear energy, there is a need to ensure that safety, reliability, proliferation resistant technologies, and alternative energy are fully explored. In the wake of the Fukushima tragedy some countries have opted to start the transition to nuclear-free energy, others continue to rely on nuclear power generation. Whatever the basic national
choices can be, it is clear that the world needs today a new generation of stricter international standards of nuclear safety and security and enhanced transparency with their enforcement

Climate Change

Climate change poses new threats but also opportunities for cooperation. For example, water is often cited as a likely source of conflict. Yet the empirical evidence shows that water far more often leads to enduring cooperation arrangements. In general, the connection between resource scarcity and armed conflict is far less evident than is generally thought. Arresting and mitigating climate change raises serious issues of global equity. At the same time, cooperative and renewable solutions, such as solar and wind, offer great promise for slowing climate change, achieving the mandatory shift to new energy sources, and for creating a world of better distributed resources.

Social Responsibility of Scientists

Pugwash originated as a group of scientists concerned about the use to which science is put, initially in the context of nuclear weapons. The social responsibility of scientists has become increasingly important in both informing robust and evidence-based policy making and in the responsible use of science. Scientific input will continue to be critical in dealing with emerging technological risks, including the challenge of tackling climate change and giving early warning of potential disaster and the amelioration of disaster consequences, as at Fukushima. The problems of ensuring scientific quality in an environment of secrecy (whether for national security or commercial reasons) need to be addressed, as do those inherent in the possible dual use of scientific advances such as nanotechnology. More attention should be given to the exploitation of science and technology for human development rather than human – and environmental – destruction, and to the broader education of working scientists in their responsibilities to society.

Conclusion

The Pugwash community draws inspiration from the positive legacy of the city of Berlin and looks to a future where we continue to create peace and security through dialogue and cooperation. If walls can come down here, there is hope for those who struggle elsewhere that it is possible to create common ground and a more secure world for future generations. The Council notes again the important role of young people in these discussions, and congratulates the International Student/Young Pugwash movement for promoting these issues among their peers.

More than 350 people from 43 countries took part in the 59th Pugwash Conference on Science and World Affairs, “European Contributions to Nuclear Disarmament and Conflict Resolution,” from 1-4 July 2011 in Berlin. The 2nd Simons Symposium, “European Security and Nuclear Disarmament,” was co-sponsored with the European Leadership Network for Multilateral Nuclear Disarmament and Non-Proliferation and involved German Foreign Minister Guido Westerwelle and other current and former policy makers. International Student/Young Pugwash convened a meeting of 32 people from 18 countries, with a focus on the Middle East. International Pugwash and the German Pugwash Group (the VDW) thank all those who made this conference and related work possible, and in particular recognize the pivotal financial and logistical support provided by the German Federal Foreign Office, and the generous support of the Simons Symposium provided by the Simons Foundation (please see our website for a full list of supporters of this conference). The Council also noted with deep appreciation the many years of dedication and leadership provided by former Executive Director Dr. Jeffrey Boutwell, and former Pugwash Council Member and Chair Prof. Marie Muller.

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