

Compendium of the Addresses of Jayantha Dhanapala

As President of Pugwash 2007-2017



Pugwash Conferences on Science and World Affairs

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Foreword

By Tatsujiro Suzuki
Chair, Pugwash Japan
November, 2017

It was October, 2007, in Bari, Italy, when I met Amb. Dhanapala in person as the newly elected President of Pugwash. At the first informal meeting with Pugwash Japan, he emphasized the important role that Pugwash Japan can and should play in nuclear disarmament, and in particular, in the Pugwash movement. I was truly encouraged and inspired by his passionate words to us. And he told us that Japan was the first country to visit as a President of Pugwash. We were honoured and excited to welcome him in Japan.

His first visit to Japan as a Pugwash President was realized in next year, summer of 2008. He visited Tokyo, Hiroshima and Nagasaki and it was a very precious time for Pugwash Japan and in particular for me personally, as I was able to talk with him during his trip in Tokyo and Nagasaki. At every occasion, he gave us inspiring speeches and showed his strong commitments to nuclear disarmament while emphasizing Japan's role. We were all inspired by his speeches filled with insightful analysis, consistent vision, and specific recommendations.

While he is a determined and passionate leader, he is also a kind, warm and affectionate person. He is a good father, taking care of his family members all the time, and I felt that he was taking care of all Pugwash members like his family. I had an honour to stay at his house in Sri Lanka once, and it was a memorable night for me to spend a couple of days in Sri Lanka with him and his family in 2012.

Now, I can't believe that 10 years have passed since then. He now officially resigned as a President of Pugwash in August 2017 at Astana. It is truly regrettable to see him leaving, and we all miss his strong leadership and kind guidance to all members of Pugwash, including many national groups and other nuclear disarmament NGOs worldwide. But, I am glad to hear that all his speeches made at Pugwash meetings will be published as a book. It will be an excellent source to remember his wisdom, kindness and commitment to peace.

I sincerely wish him the best in his new stage of life and we, Pugwash Japan, will welcome him anytime whenever he will visit Japan.

Tatsujiro Suzuki
Chair, Pugwash Japan

The 58th Pugwash Conference

Justice, Peace and Nuclear Disarmament

17-20 April 2009, The Hague, The Netherlands

It is an honour and privilege to deliver what is described as a “Presidential Address”. In fact, that is a rather pompous title and rather grandiose for an organization that is a consensual, democratic, and transparent body. The distinction between the office bearers and foot soldiers is certainly not anything as great as elsewhere. So this is not a “State of the Union” speech, but it allows me to talk about the strong linkages between the campaign for nuclear disarmament and the Pugwash movement.

Now all of you have seen the film “*The Strangest Dream*” and know how it all began with Joseph Rotblat’s dramatic leaving of the Manhattan Project, the Russell-Einstein Manifesto, the establishment of Pugwash in 1957 with the first Pugwash conference, and the growth of Pugwash into a significant movement. I would like to quote the citation of the Nobel Committee of Norway which said that, “The Pugwash Conferences are founded in the desire to see all nuclear arms destroyed and, ultimately, in a vision of other solutions to international disputes than war. The Pugwash Conference in Hiroshima in July this year declared that we have the opportunity today of approaching those goals. It is the Committee’s hope that the award of the Nobel Peace Prize for 1995 to Rotblat and to Pugwash will encourage world leaders to intensify their efforts to rid the world of nuclear weapons.” Let me repeat that last sentence: “It is the Committee’s hope that the award of the Nobel Peace Prize for 1995 to Rotblat and to Pugwash will encourage world leaders to intensify their efforts to rid the world of nuclear weapons.”

So it was the aspiration of the Nobel Peace Prize Committee that our example can inspire world leaders into doing something that we have advocated throughout our history. Now they were probably thinking about the missed opportunity that had taken place approximately ten years earlier in 1986 in Reykjavik with Gorbachev and Reagan and the historic summit; when the world missed that opportunity of being nuclear weapon free by the barest minimum. But we did, as you know, come out with an historic statement, that: “a nuclear war cannot be won and should never be fought.”

This has been a classic statement that has helped set a certain benchmark for US-Russian relations and indeed we have been fortunate not to see a nuclear war being fought, certainly by those two countries, which together own, as we have been told many times in this Conference, 95% of the 25,000 nuclear warheads around the world, 10,000 or so of them operationally deployed.

Well, despite this great compliment to us, we must be honest. The Pugwash Conferences are not the only body that has advocated nuclear disarmament and that has worked tirelessly for the elimination of nuclear weapons. We have a number of NGOs, movements, and individuals, who have also been honoured for the same reason. I go from here to Helsinki, where the IIPNW, our fellow organization, which also won a Nobel Peace Prize, will be holding a meeting. I think this is important as we are at a stage where we must have synergy amongst all our organizations, so that together we can achieve the great lofty vision of a nuclear weapon free world.

Although we have had missed opportunities in the past, we now have a unique opportunity that has arisen from the radical change in the leadership of several countries, including most significantly the USA. During the presidential campaign, then-Senator Obama had the occasion at a Washington media “roast” to deny the rumour that he was born in a manger! I can here deny that President Obama is a secret member of the Pugwash movement! But we do have a Pugwashite in the White House in our good friend John Holdren, and we know that John’s convictions throughout his whole Pugwash career, (and he made the speech in Oslo in receiving the Nobel Peace Prize on behalf of Pugwash) will, I’m sure, be with him in the advice he offers the Obama administration. I will have the pleasure of meeting John in Washington at the end of this month and I will convey to him the way in which this conference once again reinforced our own commitment to the cause of a Nuclear Weapon Free World (NWFV).

We have had, of course, over the years a number of commissions that have helped to analyze the situation, and set the agenda, including a verification agenda, for a NWFV. Early in my

diplomatic career, there was the Palme commission and the Canberra Commission, on which I had the privilege of serving together with Sir Joseph Rotblat and Robert MacNamara, and more recently the WMD commission chaired by Dr. Hans Blix, which will meet again at the end of this month in Washington DC. We know that there is another Australian/Japanese commission with another group of people to come out with yet another report. And then we have heard that the Global Zero are also putting together a commission that will address the agenda of global zero.

With all respect to all these organizations that are planning to come out with commission reports, I think we have had a great deal of analysis and a great deal of agenda setting. What we need now, before this opportunity is lost, is action. A seizing of this opportunity before, once again, we let things off. Now Pugwash has been ahead of the curve for most of the period, but what do we do when we are behind the curve? Well, we can push the curve a little bit, to see that it moves faster, but we must also reflect, amongst ourselves, what strategies we can adopt best of all in order to revitalize the nuclear disarmament campaign, thinking outside the box, and looking for other routes, other than the conventional routes that we have pursued.

As former US Secretary of Defence Perry told us, there are forces of reaction even in the US and we cannot be sure that, for example, the CTBT will be ratified in the US Senate. Now the campaign that began in 2007 with the Wall Street Journal op-eds by the "Four Knights," repeated in 2008, and now taking organizational form with the University of Stanford and the Hoover Institute behind it, has gathered momentum. There is also the Global Zero, and we are very privileged to hear a detailed description of its activities from Dr. Jennifer Simons, who was with me at the launch held in Paris. Amongst these parallel movements that are gathering momentum, "the global public good of the highest order" that UN Secretary-General Ban Ki-moon spoke of in October last year, is in fact this NFWF. Therefore, the more who join the movement, the better it is for us.

But we must also be careful about the different directions in which we might go as we approach the goal. We have all been inspired and encouraged by the Obama statement of April 1st, and by the Prague speech a few days later. In sum, President Obama's agenda includes the ratification of the CTBT by the US hopefully during the course of this year. That really involves getting 6 to 7 senators from amongst

all those 'Doubting Thomases' who were there the last time to change their positions. Vice-president Joe Biden himself, a creature of the Senate, is going to be in charge of the campaign. I think they will need a lot of help. And so it is up to us as NGOs and other groups to try to meet, and particularly those of you who are US-based, some of the senators in order to persuade them that it is important that they should support this campaign so that we can have the ratification by the US, which began the process of the CTBT, accomplished by the end of this year; or certainly by the May 2010 NPT Review Conference.



But I hear disturbing stories about the approval of the Reliable Replacement Warhead (RRW) as a kind of barter-deal for the ratification. I heard a disturbing statement from the former Foreign Secretary of India Shyam Saran who said that it could not be assumed that India would follow the US by signing and ratifying the CTBT because they would want it linked to a nuclear disarmament programme. So we have not only got to work with the US Senate, but we have to work with the other 8 countries that have still not signed or ratified. You know who those countries are. So now let us get to the task, in our own way, try to use our time and energy to ensure that the CTBT is in fact entered into force. We are sorry not to have had Tibor Toth (Executive Secretary of the Preparatory Commission of the Comprehensive Nuclear-Test-

Ban Treaty Organization) here to tell us the level to which he has brought his organization and his verification machinery so that the entry into force would be a very significant process.

The other issue that President Obama set out in both his statement on April 1st as well as in his speech in Prague, are US-Russian relations. And we know that these relations have been left in abeyance for far too long. There was, I think two years ago, the agonized speech of President Putin in Munich which complained about the neglect of Russia, a great power, a great nuclear weapons state, a permanent member of the UNSC, which has not been paid due respect. Instead, NATO was being expanded right to its doorstep and a missile defence programme was being erected in countries very close to it, with some provocation, although various excuses were given. I'm glad now that there is a sea of change in the relationship between the US and Russia. And I hope the statement that emerged on the 1st of April is only the beginning of a process. Yet again we are happy that people whom we know – Rose Gottemoeller and others in the US administration - and those in the Russian foreign ministry – are going to engage in this negotiating process as soon as possible. So we return to the old negotiating process of bilateral disarmament agreements, trying to bring down numbers. But in this bean-counting exercise, we hope we don't lose sight of the spirit of disarmament and the goal of a NWFV. Because we may go down to 1000, we may go down to 500, but what beyond that? This is not a permanent resting place. And so we must ensure that the negotiators are also aware of that.

The 3rd item on the Obama agenda is the FMCT. And he talked about the importance of moving matters in the Conference on Disarmament - and God knows matters need to be moved in the Conference on Disarmament. But it is not enough to talk about fissile material cut-offs because there are also existing stocks, which concerns some people, and which concern us. There will also be the Nuclear Posture Review that will set out the doctrine. All this will have to be achieved before the NPT Review Conference next year if that conference is to succeed. I had the privilege of presiding over the 1995 NPT Review and Extension Conference, and then from the UN I was happy to see the 2000 Review Conference succeed with the adoption of the "13 Steps." Fortunately I was gone when the tragedy of 2005 took place.

But now in 2010 I will be there, I hope, in my capacity as President of Pugwash to see the treaty

safeguarded, strengthened, and carried forward. Yet I think it was Rebecca Johnson who told us here that perhaps this is now an outdated game. Because we hear a myriad of promises before a Review Conference, if the Conference succeeds in papering over the cracks and coming out with a final document, everybody feels very pleased with themselves, and go back to their country saying they have had a successful conference. And of course if it fails, once again, they go back but nothing changes, it will be business as usual. And this is why I say that we need to have something very much more than the ritualistic exercises that we have seen. We have to see whether there can be a change in the game. And for that we need out-of-the-box thinking.

We need to attack on the role of security doctrines and what place nuclear weapons occupy there. It was a fundamental shift during the Bush-Cheney administration that caused alarm among all of us, for the use of nuclear weapons that was predicated. Likewise, in NATO, and there are many countries in NATO today, more and more whose citizens are members who are represented in Pugwash. We need to ensure that there is a revision of these doctrines so that the salience of nuclear weapons in security is reduced considerably. Because it is only after that it will be possible for these weapons to be eliminated. We must also support those countries within NATO who want to get rid of nuclear weapons on their side. Now we have heard very important statements from countries like Germany recently, which need to be supported by us because it's extremely important.

Some years ago there was a book that estimated a cost of the manufacture of nuclear weapons, "Atomic Audit" it was called, and I forget the figures, but phenomenal figures were quoted for the actual cost of nuclear weapons. Today the nuclear weapons budget is estimated at US\$52 billion. That is a significant chunk of the US budget at a time of the international financial meltdown. So nuclear disarmament makes eminent financial sense as well as making eminent security sense. And this is something that we must continue to urge with both the US as well as with other nuclear weapon states.

Let me go on to the NPT of 2010, which we must all prepare for. And I propose being present at the PrepCom at the first week of May with Paolo (Secretary-General Cotta Ramusino) and Jeffrey (Executive Director Boutwell) in order to see what we ourselves can offer as Pugwash to assist the process. There will, of course, be a number of issues

that will agitate the minds of the NNWS as well as NWS. The previous PrepComs have largely been devoted to procedural issues and there is no one more competent to talk about it than Rebecca Johnson.

But I think that there are a number of issues that we have to think about which concern the work that Pugwash has been doing already, and which you heard Paolo talk about when he presented his report. I refer to Articles I and II, and particularly to Article III, but also the fundamental question of Article IV on the peaceful uses of nuclear energy, which from its inception has been assured as an inalienable right. And now, efforts are being made to circumscribe the exercise of that right for reasons of realpolitik. For a number of countries that legally renounced nuclear weapons possession, one of the attractions was the opportunity of using nuclear energy for peaceful purposes, not only for power, but also for agriculture and medicine. All of them are connected to the agenda for a developing country, so that the 'bottom billion' in the world were looking forward to the use of nuclear energy and to assistance under projects from the IAEA. And now they are being told, "Hold on chums, there are some problems, we need to be sure that somewhere in the hidden recesses of your mind, you are not going to go for nuclear weapons and we need to be assured of that." And so countries even in good standing in the NPT, like South Africa and Brazil, are being told to join a multilateral fuel cycle arrangement where you can have nuclear fuel whenever you want to, and reactors whenever you want to. The governments of these countries ask 'Well, what criteria do we need to satisfy, apart from financial payment to get this?' And then you begin to see the subtext, and the fine print of the arrangements, which make it very clear once again that you will have certain countries dominating the decision-making, and making it extremely difficult for the countries of the South to have access to nuclear energy.

So no wonder that there is a great deal of suspicion, animosity, and concern relating to this new arrangement regarding Article IV. And on Article VI, of course, I don't think we can expect to have nuclear disarmament within the context of the NPT as Rebecca said. I will talk about this later on when I discuss other routes that we may pursue. There is of course a new issue being brought up in regard to Article X, and that is as a consequence of a decision by the DPRK to withdraw from the NPT and the fact that some countries would like to maintain the fiction that the DPRK is still a member of the NPT that occasionally goes off on a weekend and tests a

weapon. We have to be very realistic about it. Article X cannot be converted into a jail to keep NNWS unwillingly within the NPT permanently. It is true that we have to find ways and means diplomatically, as the UK very successfully did in the case of Libya, to contain a potential break out.

It is true that this takes time, takes effort, but that is precisely what all of us are trying to do here in Pugwash – the efforts that Pugwash are making in the DPRK, the diplomacy that we are engaged in with regard to Iran, which the US National Intelligence Estimate has told us is very far away from developing a nuclear weapon. And so there is a lot that needs to be done through diplomacy, not by using a sledgehammer. We saw where a sledgehammer got Mr. Bush. Therefore, we should look into what we can do and here the scientific expertise of Pugwash must be utilized. What should we do with the existing stock, running into 1370 tonnes of HEU if you do not count what is being set aside for downblending? What do you do about the separated Pu of 244.9? You have to find solutions. Whether it is by encouraging countries not to enrich to the high levels that are being contemplated or whether it is to encourage manufacture of nuclear proliferation resistant technology, new kinds of reactors for example – it is an area in which the scientists in Pugwash can perform a huge service. I suggest that we try to harness the energies of all these countries together. We can have a task-force to propose this. We can produce scientific papers that will help to change the thinking of a number of developing countries, which will find our proposals more acceptable, more credible, and more trustworthy. So let us move in that direction.

This current conference is another step in a longstanding connection between Pugwash and the campaign to eliminate nuclear weapons. But the question we must honestly ask ourselves is how much closer are we to the goal? Is it a mirage? There have been in the past so many broken promises, so many unfulfilled bargains, so many false dawns. Alva Myrdal wrote many decades ago about "*The Game of Disarmament*." So are we going back to the old order, the pre Bush-Cheney order, with the bean-counting in US-Russian negotiations with regard to nuclear disarmament? All this might sound cynical, but I think our predecessors in Pugwash were always cautiously optimistic. They always advised other options than the conventional one, there were always other plans that they proposed.

We have heard warnings, as I said, about the forces of reaction within the US and other NWS. They are not going to fold their tents and go away. The laboratories of Los Alamos, Sandia, and Livermore are not going to give up. They were once fed the bait of the stockpiles stewardship programme. What will they demand now? So we have to be alert to all aspects of nuclear weapons programme. Some of you may have read an article that I wrote in some concern about what might come out of the Medvedev-Obama meeting of 1st of April. And there I quoted two young writers in the US – Darwin Bond-Graham and Will Parish – who published an op-ed piece in *Foreign Policy In Focus* at the beginning of this year. And they talked about the concept of anti-nuclear nuclearism. Let me quote just the first paragraph: “Anti-nuclear nuclearism is a foreign and military policy that relies upon overwhelming US power, including the nuclear arsenal, but makes rhetorical and even more substantive commitments to disarmament, however vaguely defined. Anti-nuclear nuclearism thrives as a school of thought in several think tanks that have long influenced foreign policy choices related to global nuclear forces. Even the national nuclear development labs in New Mexico and California have been avid supporters and crafters of it.”

So beware of this anti-nuclear nuclearism and the nice phrases about a NFWF that are in fact not mirrored by the actions that are taken. Watch closely for budget allocations. There had been an attempt, at the end of last year and subsequently after the Obama administration came in, to have the fiscal impetus package include some money for the nuclear weapons programme. Fortunately that was discovered by some alert people and it was removed. I think all of us have a duty to ensure that anti-nuclear nuclearism does not win the day.

And so we must therefore look for other routes. One route that has been proposed is an NPT amendment conference even though we know that that route is unlikely to succeed. Those who advocate it point to the fact that the 1963 Partial Test Ban Treaty amendment conference, which was well in motion and led by the great Alfonso Garcia Robles of Mexico, was one of the elements that provoked the NWS in to rethinking their opposition to the CTBT.

There are many other routes. There is the possibility of recanvassing the nuclear weapons issue and its legality with the ICC here in The Hague. We know that the decision that came out in 1996 was not as clear-cut and unambiguous as we would have liked,

or as some of the judges would have liked. But we have to approach this carefully. I know that some countries have been thinking about it. It all depends on the composition of the Court and on the framing of the question. But this is another route we can adopt.

Then there is the UN’s Secretary-General’s route. I had the privilege of being present in New York on the 24th of October last year, when Ban Ki-moon, who many people accused of not being very sympathetic to us, made the most extraordinary speech of any UN Secretary-General that I have known. He began of course by talking about a world free of nuclear weapons, which would be a global public good of the highest order, and then went on to talk about a 5-point proposal. Firstly, he urged all NPT parties to fulfill their obligations under the Treaty and to undertake negotiations on effective measures leading to nuclear disarmament. It is in that context that he asked them to consider negotiating a Nuclear Weapons Convention, referring to a draft that was on the table of the UNGA, co-sponsored by Costa Rica and Malaysia. He went on, of course, to make several other points in his 5-point proposal, which I am sure that many of you are familiar with. But one that is relevant to our Conference here in The Hague is his initiative relating to the rule of law. He talked about the need to bring so many of the disarmament treaties into force, including the CTBT, but also mentioning the many nuclear weapon free zones, treaties that have not entered into force because some of those have not been signed by the NWS. I am happy in this context to note that the treaty with which I was personally associated, the Central Asian Nuclear Weapon Free Zone, did come into effect because of the various countries signing and ratifying the treaty not so long ago. He also talked about accountability and transparency and complementary measures that are needed. Now this is the furthest that any UN Secretary-General has gone in calling for a NFWF. I hope he survives.

There is also the proposed Arms Trade Treaty even though it is not directly linked to the agenda of nuclear weapons. We have to encourage treaties like this, or movements towards signing a treaty like this, because according to the SIPRI Yearbook 2007, global military expenditure was US\$1,339 billion, which works out roughly as \$202 per person. At a time of the international financial crisis, we would do well to look at how much of this expenditure is really necessary to maintain security, and how much of it is profits made. Just as Wall Street made a profit from Main Street, so are the arms

manufacturers making profits at the expense of those people in developing countries who fight their wars and have no other means than to buy these arms.

Thank you.

So we have to not only engage in our task of nuclear disarmament and disarmament in general by rebooting the system, but also by looking at how we reconcile unequal power and asymmetrical arms control. Because the framework in which we have to work in the world today is not just a framework of nation-states, 192 of them in the UN. It is also a framework in which the nation-states have to work with non-state actors. There was a proposal, during this conference by a Pakistani professor, who suggested that we should look into how we can have a dialogue with non-state actors, the dialogue that Paolo has successfully conducted in many regions of the world where there are conflicts. Obviously we cannot have a dialogue with every one of them and not all of them will be interested, but with those who are, is there some way in which Pugwash can engage in a dialogue?

There is also the North-South problem, which is going to be aggravated. The Doha Round was one of its battlefields. There are new emerging economies in the South – China, India, South Africa, and Brazil – the G20 is one arena in which they can work together with the North. But are we going to lose this opportunity once again? And finally, of course, there is always the divide between the NWS and the NNWS. That divide will always be an impetus for countries that want to be NWS, as long as nuclear weapons are invested with the political power and significance.

And so we must – all of us – reflect once more on the statement in the WMD Commission Report that said, “So long as any state has such weapons, especially nuclear arms, others will want them. So long as any such weapons remain in any state's arsenal, there is a high risk they will one day be used, by design or accident. Any such use would be catastrophic.” This echoes words that have been in other statements of Pugwash. It repeats, in different language, what the Pugwash movement has said from its inception. But it is not only by words that we can counter the machinations of the nuclear lobbies of the world, it is by actions. And I conclude by appealing to all of you to do what you can, to exert your influence, to use your scientific expertise in order to build a bulwark against nuclear weapons. So that in our lifetime, if not in our lifetime then in President Obama's lifetime, we can achieve our vision of a NWFV.

The 59th Pugwash Conference

European Contributions to Nuclear Disarmament & Conflict Resolution

1-4 July 2011, Berlin, Germany

It is two years since I had the privilege of addressing you, in my capacity as the President of the Pugwash Conferences on Science and World Affairs - the 11th in a line over a period of 54 years traceable to our founder President Lord Bertrand Russell. That was in The Hague. We now meet in Berlin - a city which symbolizes the end of the Cold War. We are all converted into being Berliners by committing ourselves to breaking down the walls that separate us. I value this periodic opportunity to share some of my thoughts with you on global security issues.

The Pugwash Mission in a Changing World

The document "Principles, Structure and Activities of Pugwash" adopted at Bari in 2007 for the current quinquennium provides us all with a compass. In particular let me quote the section on Principles:

"The Pugwash Movement is the expression of the awareness of the social and moral duty of scientists to help to prevent and overcome the actual and potential harmful effects of scientific and technological innovations, and to promote the use of science and technology for the purpose of peace. Its main objective is the elimination of all weapons of mass destruction (nuclear, chemical and biological) and of war as a social institution to settle international disputes. To that extent, peaceful resolution of conflicts through dialogue and mutual understanding is an essential part of the Pugwash activities, that is particularly relevant when and where nuclear weapons and other weapons of mass destruction are deployed or could be used."

It is clear from the report of Pugwash activities on our website, and the proceedings of this conference, that we have faithfully followed this mission within our capabilities, limited as they are by our financial and human resources. It is also clear from the message of the United Nations Secretary General to this Conference that the United Nations(UN), and indeed the rest of the world, looks to us for leadership in fulfilling this mission.

Developments since the 2009 Pugwash Conference

2009, was a year of promise with President Obama's memorable speech in Prague, the negotiations between the United States(US) and Russia and many other hopeful signs. It was a spring time of hope - but I asked then, cautiously, having lived through several false dawns, whether we were going to see a summer season for disarmament. In January 2010, in my presence in New York, the Bulletin of the Atomic Scientists with which Pugwash has a sibling relationship, moved the minute hand of its famous "Doomsday Clock" one minute away from midnight citing a "more hopeful state of world affairs". The

Clock is now at six minutes to midnight. Many of us felt, as the Bulletin did, that "We are poised to bend the arc of history towards a world free of nuclear weapons". 2010 saw some fulfillment of those hopes with the signature and the eventual ratification of the New START treaty between the US and Russia; the Washington Nuclear Security Summit; the new Nuclear Posture Review of the US and the successful adoption of a final document at an Non Proliferation Treaty (NPT) Review Conference after 10 years with significant decisions on a weapons of mass destruction free zone (WMDFFZ) in the Middle East.

2011, I fear, could signify a return to business as usual. Indeed a significant drop in the momentum of multilateral activity on disarmament issues is noticeable. Civil society together with organizations like Pugwash must ensure that this does not happen despite the compulsions of an election year in the US, Russia and other places that loom ahead. Peace and disarmament in the world cannot be held hostage to any nation's domestic political processes.

New START and the NPT Review Conference

Let me deconstruct two of the much vaunted successes of 2010: When New START was signed on April 8, 2010, it was rightly hailed as a return to traditional nuclear arms control through verifiable and irreversible treaty arrangements between the

two nuclear giants who own an estimated 95% of the nuclear weapons in the world. This was also part of the long overdue "resetting" of U.S.-Russian relations, which had been allowed to slide under both Clinton and Bush II, and almost resulted in a clash over Georgia.

It is, in reality, a modest disarmament measure. An estimated 30% reduction of permitted deployed strategic nuclear weapons over a seven-year period is envisaged out of the total of 20,530 nuclear warheads in the arsenals of eight nuclear weapon-armed countries. Approximately 5000 of these weapons are deployed and ready for use, including nearly 2000 that are kept in a state of high operational alert. Apart from those with a visceral allergy to any arms reductions, specific attention was focused by opponents of New START on its verifiability -- a rich irony when the 2002 Strategic Offensive Reduction Treaty (SORT) had no verification and the 1991 START I arrangements were allowed to lapse in December 2009. There was also criticism of the innocuous preambular language on missile defence leading to wild accusations of secret agreements to abandon what is in fact a wasteful, ineffective and provocative military programme with illusory defence and the real danger of another arms race in Ballistic Missile Defense(BMD) systems.

The U.S. Senate ratification of New START has exposed the strength of the opposition by the cold warriors and the military-industrial complex to nuclear disarmament and nuclear non-proliferation. They exist and work assiduously in many countries and represent, collectively, what President Eisenhower, in the wisdom distilled from an illustrious military career followed by 8 years as President of the USA during the Cold War, warned us about in his farewell speech in January 1961. It bears quoting again and again - "In the councils of government, we must guard against the acquisition of unwarranted influence, whether sought or unsought, by the military-industrial complex. The potential for the disastrous rise of misplaced power exists and will persist. We must never let the weight of this combination endanger our liberties or democratic processes. We should take nothing for granted. Only an alert and knowledgeable citizenry can compel the proper meshing of the huge industrial and military machinery of defense with our peaceful methods and goals, so that security and liberty may prosper together."

Many believed Obama when he declared -- "clearly and with conviction America's commitment to seek the peace and security of a world without nuclear weapons." adding "(we) must ignore the voices who tell us that the world cannot change. We have to insist, 'Yes, we can.'" Obama can still redeem himself by continuing to seek the elimination of nuclear weapons despite the odds he faces. He needs the support of the international community for this.

A second success claimed was the NPT Review Conference of May 2010 where Pugwash was active in the lead up and the duration of the conference. An objective assessment of the conference involves honest answers to the more political questions related to the future of the regime. The relief of the Nuclear Weapon States (NWS) over the adoption of the Final Declaration's conclusions and recommendation including the 64 point Action Plan together with the lukewarm reaction by the Non Aligned Movement (NAM) states and the pro-disarmament NGOs indicates that we have only bought the NPT another five years. The tensions endemic over the central bargain remain. Good-faith implementation of the document's Action Plan will be crucial, as will progress on the new START, and ratification of the Comprehensive Nuclear Test Ban Treaty(CTBT) by the United States. The future course of the Six -Nation Talks on the Democratic People's Republic of Korea(DPRK), the resolution of the questions over Iran's nuclear program, and the outcomes of the 2012 Middle East conference- if it is held at all- will also determine the future of the NPT. The NPT has survived another challenge, but without further action by the NWS, the nonproliferation regime may well wither away.

Let me add a word on the decisions taken on the Middle East Weapons of Mass Destruction Free Zone (WMDFZ.) After 15 long years of delay in implementing the Resolution in the Middle East- an integral component of the package crafted by me as President of the 1995 NPT Review and Extension Conference to ensure the indefinite extension of the NPT - that resolution was given some attention in 2010. A number of steps were agreed upon in the New York negotiations surrounding the decision to hold a conference on the WMDFZ in 2012. Immediately after the Review conference statements were made by officials of the US Government which were unhelpful. Today, 13 months after the conference, we have no sign of the decisions taken in New York last May being implemented -- except for one line in a Press

Release issued at the end of the P5 meeting in Paris last Thursday which said “The P5 welcomed the steps taken by the US, Russia and UK towards holding a Conference on a Middle East WMD Free Zone (MEW/MDFZ) in 2012.” What indeed are these steps?



We could have another period of frustrating inactivity culminating in a confrontational climate at the 2015 NPT Review Conference and the Preparatory Committee meetings that precede it beginning next year, Surely domestic election consideration need not prevent the preliminary tasks of appointing a Facilitator and selecting the host country of the 2012 Conference. I call upon the UN Secretary-General to seize the initiative and announce these decisions urgently so that the process can commence. Consultations can begin thereafter through the Facilitator for the actual convening of the conference.

The agenda for disarmament and in particular, nuclear disarmament, contains a welter of unfinished business. The CTBT has still to enter into force and the US administration must ensure its ratification by the US Senate paving the way for the other 8 countries to follow their example. In Geneva, the single multilateral negotiating forum-the Conference on Disarmament (CD)- goes into a second decade of paralysis. It is simplistic to blame one country for that state of affairs when there are so many topics crying out for negotiations immediately if only the membership agreed to do so. As we have heard repeatedly in this Pugwash conference, some 200 NATO tactical nuclear weapons remain deployed in 5 countries in Western Europe despite the declared policies of some of these countries and their public opinion. NATO - Russian relations have still to address many difficulties that lie ahead and further US Russian nuclear reductions have to be negotiated along with understandings on the deployment of BMD systems. Risks of a space war and cyber war remain

ominous. The problems over the nuclear programme of the DPRK remain daunting. Similarly with Iran, negotiations with the P5 +1 have not brought the desired results. We were briefed during the Conference on progress being made in negotiating an Arms Trade Treaty. Complicating all this is the persistent impact of the global economic crisis of 2007-2008.

Military Expenditure, Arms Transfers and Global Security.

Throughout my diplomatic and international civil service career, I have depended on the Yearbook of SIPRI to provide me with reliable information and analysis of the international peace and security situation in the world. Today, as Vice Chairman of the Governing Board of SIPRI, I am more aware than before of the intensive research and rigorous scholarship that go into this annual assessment. SIPRI estimates that the world spent US \$ 1630 billion on military expenditure in 2010 - 1.3% higher in real terms than in 2009 and 50% higher than in 2001 - notwithstanding the global economic crisis. The growth in 2010 was almost entirely due to the US military spending. While military spending grew most rapidly in South America and Africa, the only surviving super power the USA accounted for 43% of the global share which even the next 10 largest military spenders could not match. One of them, Saudi Arabia, spent 10.4 % of its GDP on military expenditure - well above the global average of 2.6%. Admittedly there were 15 major armed conflicts including those in Afghanistan and Iraq which explains some of this expenditure. But knowing as we do that an over armed world has been the pattern even after the cold war ended, there is no prospect of serious military expenditure reductions in the future.

Another statistic that emerges from SIPRI's Yearbook is the volume of international transfer of major conventional weapons. From 2006 to 2010 this was 24% higher than in 2001 and 2005. The 5 largest suppliers of weapons during this period were the USA 30 %, Russia 23%, Germany 11%, France 7% and UK 4%. Among the major recipients were the Republic of Korea, India, China, Greece, South Africa, Singapore, United Arab Emirates and Saudi Arabia. Bruce Blair estimates that the full cost of nuclear weapons alone is \$101 billion this year and that for just one nuclear weapon we could provide health care to 36,000 people, textbooks for 43,000 students or convert 64,285 households to renewable energy. All nine nuclear armed states, whether within the NPT or outliers, present a threat to global security. Napoleon is said to have

remarked: "Bayonets are wonderful! One can do anything with them except sit on them!". Today's bayonets are nuclear weapons; and we are actually sitting on them. The potential for their use by accident or design; by the states themselves or by terrorist groups within states is too great for the people of the world to accept.

Outside these sombre statistics is the larger political landscape with the continuing impact of the 2008 international financial crisis lingering on in many countries and the gradual shift of the centre of gravity in global political and economic terms. There is clearly an emergence of the Global South. As Deepak Nair, Emeritus Professor of the Delhi School of Economics has pointed out, in 1000 AD Asia, Africa and Latin America together accounted for 82% of the world population and 83% of global income. This continued for eight centuries. In 1820, the three continents still claimed three fourths of the world population and two thirds of its income. Then, came the industrial revolution and colonialism, a revolution in transport and communication and the rise of Western Europe and the decline of Asia. Between 1870 and 1950 per capita incomes in Asia fell to one tenths of Western Europe. So also did the incomes in Africa and Latin America. But from 1950 Nanyar identifies a resurgence of developing countries after decolonization. From 1951 to 1980 there was rapid economic growth in the developing world. And in 2005 we were back to the same statistics as in 1870. This catch up is still limited to a few countries in the global south, particularly, India, Brazil, China and of course, the South East Asian countries but the 21st century is going to be the turning point. It is going to be a turning point where we are going to see an economic and political impact in the rise of the global south. There are, of course, very clearly demographic factors at work. But I would also like to see a new paradigm so that the emerging economies do not repeat the mistakes of the OECD countries in the industrialized West. They must undertake nuclear disarmament, reduced military expenditure and sustainable development. This is not yet evident and environmental abuse as well as corruption afflict these countries while some of them remain nuclear armed.

The influence of non state actors and new global and regional powers is also taking place at a time when the global security structure is exposed as being weak, outdated and inefficient. The institutions, the treaties and the processes that we had established after World War II have to be revisited and revised. We have to learn the lessons

from the recent economic crisis. I quote the UN Secretary General, Ban Ki-moon who said, "While recently we have heard much in this country about how problems on Wall Street are affecting innocent people on Main Street, we need to think more about those people around the world with no streets. Wall Street, Main Street, no street – the solutions devised must be for all."

An official US Commission established to investigate the causes of this economic collapse, came to the following conclusions in a report presented this year:

- The financial crisis was avoidable.
- Widespread failures in financial regulation and supervision proved devastating to the stability of the nation's financial markets.
- Dramatic failures of corporate governance and risk management at many systemically
- important financial institutions were a key cause of this crisis.
- A combination of excessive borrowing, risky investments, and lack of transparency put the financial system on a collision course with crisis.
- The government was ill prepared for the crisis, and its inconsistent response added to the uncertainty and panic in the financial markets.
- There was a systemic breakdown in accountability and ethics.
- Collapsing mortgage-lending standards and the mortgage securitization pipeline lit and spread the flame of contagion and crisis.
- Over-the-counter derivatives contributed significantly to this crisis.
- The failures of credit rating agencies were essential cogs in the wheel of financial destruction.

That is a damning indictment of the financial institutions in the richest country in the world. It is an acknowledgement of the irresponsible management of economic power with appalling consequences for the rest of the world hurt by the contagion that spread throughout the global system in a highly accelerated process of globalization. We are still recovering from this. But let us draw lessons from this.

A more serious crisis threatening the survival of humankind is waiting to happen. We, in the political and security arena have got to address the international security governance system. It has to include much needed reform of the Security Council -to which the German Foreign Minister referred in his keynote address opening this conference, if we are going to ensure that the changing power equations are going to be accommodated smoothly. I have argued elsewhere for the eclipse of hard power both in military terms and in economic terms and advocated the evolution of smart sustainable power. Only then can we have a more secure world at lower levels of armaments ensuring that the bottom billion of our global population who now live below \$ 1.25 per day are lifted out of the indignity of poverty.

With regard to the Security Council, it is curious that Security Council resolution 1973, is adopted by a simple majority with 2 permanent members abstaining, and is thereafter interpreted as legal authority for a massive onslaught on a country for having caused civilian casualties while the NATO bombing itself results in civilian deaths. Likewise, the “Arab spring” which has given the world so much hope is being snuffed out in some countries with foreign intervention while the Security Council looks on. The selective application of the “Responsibility to Protect” concept vitiates its very objective.

Nuclear power and Fukushima

I extend my sincere sympathies to the Government and people of Japan – and especially to the members of Japan Pugwash – over the loss of life and damage caused by the effects of the recent tsunami on the Fukushima Daiichi nuclear plant. We have heard an authoritative and graphic description of this tragedy, and its repercussions and implications from Dr. Tatsujiro Suzuki in his Dorothy Hodgkin Lecture today. Societal resistance to nuclear power plants has clearly increased. It was not long ago when the world was hailing what appeared to be a nuclear renaissance or Second Nuclear Age. It was the upsurge of a demand for nuclear power as a response to the Intergovernmental Panel on Climate Change reports on climate change and the shift away from carbon emitting fossil fuels. Currently some 14% of global electricity is supplied by nuclear power. The International Atomic Energy Agency (IAEA) Power Reactor Information System (PRIS) reports that 440 power reactors are operating in the world and that 65 reactors are under construction.

Concerns were being expressed over the challenge this posed for the non-proliferation of nuclear weapons. All countries within the NPT are of course well within their rights to embark on nuclear power for peaceful purposes as an energy option. Article IV of the Treaty for the Non-Proliferation of Nuclear Weapons (NPT) states that the use of nuclear energy for peaceful purposes is “the inalienable right of all the parties” without discrimination, and that all should facilitate this transfer of technology. Many countries already benefit from non-power uses of nuclear energy for development purposes in areas like nuclear medicine, industrial applications, control of vector-borne diseases etc. Over 60 countries have notified the IAEA of their interest in developing nuclear power. This spurt of interest in nuclear energy as a source of power is undoubtedly related to the high cost of oil; acute concern over climate change through CO2 emissions; the slow pace of technological development –and consequently, in cost reductions in non-conventional renewable sources of energy such as biomass, solar and wind; and the abundance and relative cheapness of uranium.

The so-called ‘nuclear renaissance was already sputtering out before Fukushima, as a new Canadian study revealed. Nuclear power is expensive and takes time to come on stream, whereas cheaper and quickly deployed alternatives are available. The nuclear-waste problem, which no country has solved, as remains daunting. Can we insulate nuclear plants from strikes, acts of sabotage and sheer human error apart from natural disasters like earthquakes, volcanic eruptions, tsunamis and typhoons? For all of the above reasons, a healthy open debate must begin and Pugwash with its scientific expertise must lead this. I am glad that the Sri Lanka Pugwash group plans a Workshop in Negombo in early September to discuss the power options of developing countries in South and Southeast Asia while the Africans plan something similar.

Conclusion

Finally, ladies and gentleman, let me assure you all that the governance of our organization, the Pugwash Conferences on Science and World Affairs, is in good hands with its existing Council and Executive Committee which met here in Berlin prior to the opening of our conference. However, I appeal to each and every one of you and in particular, the national Pugwash groups to redouble your efforts to recruit new members, especially,

scientists, academics and policy specialists from among the younger generations. The torch lit by Bertrand Russell and held aloft by Pugwash must be passed on. I also appeal to you to redouble your fund raising efforts since the more funds we have the more we can do in terms of organizing workshops and meetings in our effort to achieve our objectives. Pugwash has a slender staff which carries an enormous burden and I would like to pay a sincere tribute to them all for the work they carry out tirelessly and conscientiously.

Thank you.

May I use this occasion to pay a special tribute to Dr Jeffrey Boutwell who ceased to be Executive Director in our Washington office during the course of last year. His modest demeanour and unfailing courtesy were combined with a total dedication to the mission of Pugwash. Jeffrey has not ended his long and distinguished link with Pugwash, although he is not able to be with us today, I wish him well in the future and thank him for his splendid services to Pugwash and its great causes. In terms of our structural framework, or our “constitution” if you like, we are required to have general conferences at intervals ranging from 12 to 18 months and a quinquennial conference every 5 years. Fundraising for these major events is a bigger challenge than ever before and with the consent of the Council we have had to delay some of these events so that they can be better organized and more productive. We have improved our website and our communication links with the members, but are always open to suggestions for greater improvement.

The Pugwash journey has been a long and meritorious one. While we look forward to the achievement of our objectives our pride is in the journey and those of you who accompany us on the road. Let me conclude with a quotation from the 2011 UNDP Human Development Report:

“Putting people at the centre of development is much more than an intellectual exercise. It means making progress equitable and broad-based, enabling people to be active participants in change and ensuring that current achievements are not attained at the expense of future generations. Meeting these challenges is not only possible-it is necessary. And it is more urgent than ever.”

With development and security - both national and human – so closely intertwined, that perspective is no different from the humanist message of the Einstein-Russell Manifesto and the central philosophy of Pugwash. Let us never forget that.

The 60th Pugwash Conference

Dialogue, Disarmament, & Regional and Global Security

1-5 November 2013, Istanbul, Turkey

It is six years since I assumed the Presidency of the Pugwash Conferences on Science and World Affairs in Bari. It has been a long journey with wayside stops at the conferences in The Hague in 2009 and in Berlin in 2011. We now meet in Turkey at the crossroads of the East and West which has seen a confluence of old empires and old civilizations from Byzantium in the 7th century BC through Constantinople of the 4th century AD and thereafter to today's Istanbul of modern secular Turkey. This historic city symbolizes the Alliance of Civilizations—the UN programme aimed at improving understanding and cooperative relations among nations and peoples across cultures and religions co-chaired by Turkey and Spain - countering the forces that fuel polarization and extremism. This programme underlines the common humanity of us all- a concept embedded in the London Manifesto and in the core philosophy of Pugwash. Today's Marmaray Tunnel is the modern Silk Route symbolizing how modern technology can enhance our connectivity.

We have already heard the report of the Secretary General on the activities of Pugwash and I will not repeat our many achievements. The historical mission of Pugwash from its inception and its impressive record, which, inter alia, earned the Nobel Peace Prize in 1995, has been based on a fundamental relevance to the global context in which we have been placed and had to function. Thus, as we charter a course for the future we must remain firmly anchored to the global situation of today and its likely developments. I would like therefore, to examine the contours of that political and economic situation.

Political situation

First, on the political situation - far-reaching changes have been taking place in the structure of international affairs since the end of Cold War bipolarity between the USA and the old USSR leading to a unipolar world dominated by the USA. We now see the beginnings of a multipolar world in both political and economic terms with the old powers who are the permanent members of the UN Security Council – the USA, Russia, the UK, France and China – having to accommodate the so-called

emerging economies such as Brazil, South Africa, India, Turkey and the ASEAN countries resulting in new formations like the G20 countries who are gradually becoming the global decision makers.

Rise of the South

The 2013 issue of the UNDP's Human Development Report focuses on the "The Rise of the Global South". Let me quote from it – "The South has risen at an unprecedented speed and scale. For example, the current economic take-offs in China and India began with about 1 billion people in each country and doubled output per capita in less than twenty years – an economic force affecting a much larger population than the Industrial Revolution did. By 2050, Brazil, China and India combined are projected to account for 40% of world output in purchasing power parity terms." So it is a tide lifting all boats. While South-South trade has increased from 8% in 1980 to 26% in 2011 the rise of the South must not be seen purely in terms of a North-South divide. The Human Development Report goes on to say, and I quote again, "The South needs the North, and increasingly the North needs the South. The world is getting more connected, not less... Indeed one can go further and state that there is a "south" in the North and a "north" in the South."

The Asia Pacific region is now becoming the central theatre of activity eclipsing the Euro-Atlantic. China has become the second largest economy in the world and is expected to overtake the USA in 2030. We must not however be too hasty in assuming that the Asia Pacific has become the centre of gravity of the world since the geo-political reality is that we live in a highly integrated global society. Thus, many of the threats to global security like nuclear weapons, climate change, terrorism, poverty, the global financial crisis and human rights violations continue to affect us all and any one region's insecurity can have a global impact.

Proxy Wars

The pioneers of Pugwash had as much the abolition of war and conflict as a priority as the elimination of nuclear weapons. Sadly, conflict continues to be a feature of international affairs although more

intra-state than inter-state. The re-emergence of proxy wars however is now seen in conflicts like Syria with some states supporting one side and other states supporting and arming the other. As the SIPRI yearbook 2013 says: "There is a clear risk that conflict may spread and escalate further in this region. However, just as the present conflicts were difficult to foresee at the outset of the Arab Spring, the future paths of conflict are equally difficult to predict." What is disturbing is the power politics in the Middle East and intra-Arab competition fuelling sectarian conflict and gravely retarding a solution to the legitimate aspirations of the Palestinian people let alone the hopes of the Arab Spring.

The SIPRI yearbook 2013 states that World military expenditure in 2012 is estimated to have been \$1756 billion, representing 2.5 per cent of global gross domestic product (GDP) or \$249 for each person in the world. It further states that the distribution of global military spending in 2012 shows what may be the beginnings of a shift from the West to other parts of the world, in particular Eastern Europe and the developing world. Significantly SIPRI also states that the rate of growth of military spending accelerated in the Middle East and North Africa.

Nuclear weapons in the world

Global estimates record that 17,270 nuclear warheads in both active and inactive storage exist in the possession of 9 countries in the world 5 of them within the NPT.

Of this, the USA and the Russian Federation own 95% of the nuclear weapons. 4400 nuclear warheads are on deployed status and nearly 2000 of these are kept in a state of high operational alert ready to be launched within minutes. The world remains hostage to the likely use of these weapons by design or by accident. There is also the additional risk of non-state actors securing such weapons or weapon material for their use for anarchist purposes. As a member of the Asian Pacific Leaders Network on Nuclear Nonproliferation and Disarmament (APLN) I would like to refer to our Ho Chi Minh City Declaration of the 13th October this year which noted with concern that the "Asia Pacific is the only region in the world where the number of nuclear weapons is growing". In this region as in other regions Cold War habits of mind persist and the utility of deterrence is being clung to despite the untold risks.

["Building Mutual Security in the Euro-Atlantic Region"](#) is the independent report of the four retired officials from Britain, Germany, Russia and the US – Desmond Browne, Ischinger, Ivanov and

Sam Nunn. Their reassessments of the European-Atlantic security situation amid the monetary crisis in the euro zone and the shift of power to the Asian-Pacific rim and other contemporary developments are frank - "The blunt truth is that the security policies in the Euro-Atlantic region remain largely on Cold War autopilot: large strategic forces are ready to be launched in minutes; thousands of tactical nuclear weapons remain in Europe; a decades-old missile defence debate remains stuck in neutral and new security challenges associated with prompt strike forces, cybersecurity and space remain contentious and inadequately addressed."

The global report 2013 on the financing of nuclear weapons producers titled "Don't Bank on the Bomb" by ICAN and IKV PAX Christi finds 298 financial institutions involved significantly. The following are excerpts from the summary of the report:

"Looking at the period starting January 2010, 298 banks, insurance companies, pension funds and asset managers from 30 countries were found that invest significantly in the nuclear weapon industry. 175 are based in North America, 65 are based in Europe and 47 are based in Asia Pacific, 10 are based in the Middle East, one is based in Africa and none are based in Latin America or the Caribbean."

Don't Bank on the Bomb 2013 identifies 27 companies involved in the production, maintenance, and modernization of nuclear weapons. The 27 are companies based in United States, the United Kingdom, France, India, the Netherlands and Germany. It is my personal conviction that we should be at the vanguard of a disinvestment campaign to bring down the nuclear weapon industry in the same way as the anti-apartheid disinvestment campaign undermined the apartheid regime in South Africa.

Economic outlook

The UN's Millennium Development Goals pledged to halve extreme poverty in the world by 2015 among other tasks on which partial success is being registered. A high level UN report titled "A New Global Partnership: Eradicate Poverty and Transform Economies through Sustainable Development", which came out in May this year, sets a new date for the total eradication of poverty for 2030 and gives the following description of the world today:

"There are a billion more people today, with world population at seven billion, and another billion expected by 2030. More than half of us now live in cities. Private investment in developing countries

now dwarfs aid flows. The number of mobile phone subscriptions has risen from fewer than one billion to more than six billion. Thanks to the Internet, seeking business or information on the other side of the world is now routine for many. Yet inequality remains and opportunity is not open to all. The 1.2 billion poorest people account for only 1 per cent of world consumption while the billion richest consume 72 per cent.”

To achieve the end of poverty they recommended a big universal agenda driven by 5 transformative shifts –

- (1) Leave no one behind – reaching out to excluded groups irrespective of gender, ethnicity and religion
- (2) Put sustainable development at the core
- (3) Transform economies for jobs and inclusive growth
- (4) Build peace and effective, open and accountable institutions for all
- (5) Forge new global partnerships

We live in an age of transitions. Transitions whether from insecurity to security, from war to peace, from poverty to economic growth are rarely smooth and stable. Political transitions are fraught with competition, controversy and tension; economic transitions can exacerbate inequalities; social transitions may exclude and marginalize some groups. We must therefore ensure that transitions are managed wisely and effectively and Pugwash can play a role in this.

We have still not emerged from the global recession caused in the industrialized West by irresponsible banks which had a contagious effect on the rest of the world. However, the rise of the global south has helped to mitigate the impact of the austerity measures caused by that recession on the emerging economies of the global south. Another important social statistic is that the middle class in the world is expected to number 52% of the world by 2030. That middle class contains the professional classes which have been the engine of democracy and of economic growth throughout history.

Climate change

Climate change is another area with which we, as a conference of science and world affairs, must be concerned. The 5th Inter-governmental Panel on Climate Change (IPCC) assessment report has now been published evaluating new evidence of climate change. The findings are irrefutable. It says that human activity has been undoubtedly the cause of

climate change which will make our existence ultimately unsustainable unless changes in our life styles and our consumption of fossil fuels are controlled immediately. To quote the IPCC experts:

“Warming in the climate system is unequivocal and since 1950 many changes have been observed throughout the climate system that are unprecedented over decades to millennia. ...Observations of changes in the climate system are based on multiple lines of independent evidence. Our assessment of the science finds that the atmosphere and ocean have warmed, the amount of snow and ice has diminished, the global mean sea level has risen and the concentrations of greenhouse gases have increased...Continued emissions of greenhouse gases will cause further warming and changes in all components of the climate system. Limiting climate change will require substantial and sustained reductions of greenhouse gas emissions.”. These changes have an impact on international peace and security and our very existence. Given the background I have described what are the prospects for nuclear disarmament?

Challenges for a world free of nuclear weapons

We remain wedded to our primary goal of the elimination of the most destructive weapon invented by human kind. That goal motivated our pioneers in 1957 and continues to motivate us all today. The much advertised vision of a nuclear weapon free world which we all enthused over following the historic Wall Street Journal op-eds of Shultz, Kissinger, Perry and Nunn, and translated into official policy in the Obama speech of April 2009 in Prague has now faded. After the modest New START treaty of 2011 we have still to see a resumption of US Russian talks. Obstacles have appeared in the form of the ballistic missile defence plans of the US, perceptions of imbalance in conventional weapons arsenals and the presence of theatre weapons in Europe which have no longer any military rationale. The CTBT is blocked from entry into force by 8 countries that have still to sign or ratify that vital brake on the modernization and development of nuclear weapons. They are China, the Democratic People’s Republic of Korea, Egypt, India, the Islamic Republic of Iran, Israel, Pakistan and the United States of America. The Fissile Material Cut off Treaty negotiations in the Conference on Disarmament have been blocked since 1995 while that “single multilateral negotiating body on disarmament” with so many important

agenda items cannot even agree on a programme of work!

An Open Ended Working Group on Promoting Multilateral Nuclear Disarmament and a one-day High Level meeting of the General Assembly on Nuclear Disarmament held on 26th September have been the multilateral devices designed to keep nuclear disarmament on the agenda. Their effectiveness and durability is in serious doubt. Despite the support of the UN Secretary General and civil society globally, the elimination of nuclear weapons remains a low priority for the nuclear weapon possessing countries. Pugwash must once again proclaim the outlawing of nuclear weapons as an urgent priority and lead the global campaign for this. The humanitarian aspect of nuclear disarmament, which Pugwash identified from its inception, has received fresh emphasis following the 2010 NPT Review conference which saw Governments expressing deep concern for the disastrous humanitarian effect caused by any use of nuclear weapons and called for all states to comply with international law and international humanitarian law at all times.

As the March 2013 Oslo Conference on the humanitarian consequences of nuclear weapons organized by the International Campaign to Abolish Nuclear Weapons (ICAN) concluded, the humanitarian impact of nuclear weapon use would be unacceptable and called on all to work towards a treaty banning nuclear weapons. The government of Norway too hosted an international conference on the humanitarian impact of nuclear weapons from 4-5 March which concluded with the announcement of a follow-up meeting to be hosted by Mexico scheduled for 2014

On the 26th of September UN General Assembly hosted a high-level meeting on nuclear disarmament which provided an opportunity for states to outline their policies and priorities for nuclear disarmament. In his concluding remarks Ambassador John W. Ashe President of the 68th Session of the United Nations General Assembly said, "The journey of the United Nations began plagued by the same threat that we now discuss today. Not only have we lagged in our efforts to eliminate nuclear weapons, we have veered even further off course." It is only an agreement on a Nuclear Weapon Convention outlawing nuclear weapons that will be the effective step needed. Negotiations for this must begin now.

OPCW

The award of the Nobel Peace Prize this year to the organization committed to the elimination of another category of WMD is an encouraging sign. I was happy that Pugwash in its statement on this occasion said, and I quote

"We applaud the decision of the Norwegian Nobel Committee to award the 2013 Nobel Peace Prize to the Organization for the Prohibition of Chemical Weapons (OPCW). The timing of this award is striking. The OPCW represents an outstanding example of what the international community can accomplish even at the most dire of times. This is being proven in the ongoing Syrian crisis, where in response to the use of chemical weapons bold political moves were made to attempt to avert a further escalation of the already grave military conflict. This creative solution represented 'out of the box' thinking and also was discussed at the unofficial "Track II" level, including through the Pugwash network. "

As the Secretary-General of the UN noted in his message to this conference both Pugwash and the OPCW "have demonstrated that disarmament issues lie at the heart of the global security agenda." I welcome the presence at our conference of the Deputy Director-General of OPCW in the absence of the indisposed Ambassador Ahmet Üzümcü - a national of our host country Turkey - who has led the organization with great distinction.

Syria

At the same time, the United Nations rose to one of its finest moments when the Security Council unanimously adopted Resolution 2118 (2013) on 27 September, addressing the outrageous use of chemical weapons in Syria while setting guidelines for a political solution to the civil war in that country. Great powers can sometimes, and all too infrequently, agree to use diplomacy to save the world from conflict. However the assumption that the Syrian crisis has been solved through a U.S. - Russian agreement on Syria's chemical weapons hides the ugly reality of a continuing civil war with daily death tolls adding to a total of over 100,000, a suffering populace and an exodus of refugees now numbering over two million apart from the displaced. Pugwash wishes Ambassador Lakhdar Brahimi all success as he works patiently and constructively to hold the Geneva II conference. Syria in the immediate neighbourhood of our host country Turkey, is an example of the complexity of the proxy wars that are being fought sacrificing the lives of innocent civilians causing the destruction of economies and historic cities. Concepts like the

“Responsibility to Protect” (R2P) are being abused for regime change by arms merchants and motley groups as a result of refusal of dictatorships to listen to the voices of their people. A Pugwash role in these situations is difficult but the responsibility cannot be shelved. A far more appropriate use of the concept of the use of R2P, unlike proposals like “Responsible Protection” or “responsibility while Protecting”, is contained in this quotation taken from the Bulletin of the Atomic Scientist article by Kennette Benedict:

“Applying the concept of the responsibility to protect, it follows that the international community has a duty to intervene and provide protection to individuals in the face of the state’s incapacity. But if the United Nations and humanitarian agencies judge that they are not able to respond effectively to protect civilians from nuclear detonations, as they warned in Oslo, then the only way to defend populations is to eliminate these weapons. The responsibility to protect is not only for situations where armed forces use conventional weapons to commit mass atrocities; it must also include preventing the catastrophic destruction nuclear weapons can cause. Simply put, the responsibility to protect requires global nuclear disarmament.”

The world is on the cusp of a new era when peaceful co-operation is vital if we are to forge ahead. The next steps in arms control and disarmament are a priority in this journey. Apart from the next stage in US-Russian nuclear disarmament two great opportunities are immediately available – Syria and Iran.

On Iran, the model framework agreement drafted painstakingly by Pugwash has a chance of being implemented in the new atmosphere generated by the election of President Rouhani in Iran, his statements at the UN and the telephone call between the President of the US and him. There will be obstructionist moves and negative warnings but the news so far inclusive of the meeting between the IAEA and Iran is hopeful.

The Work of Pugwash

Pugwash has been active in regional conflicts especially those that could lead to nuclear proliferation and nuclear war and our website contains comprehensive details of this. Some examples this year alone are – the Pugwash meetings on Afghan reconciliation held in Dubai, 15-17 January 2013; “Ways Forward on the Iranian

Nuclear Issue” held on 28 February 2013, Washington, DC; meetings on US-Palestine Relations held in Ramallah, Palestine, 14 March 2013; the Pugwash Consultation on the Syrian Crisis 27 June 2013 in London; Pugwash Meeting on Jammu Kashmir, 15-17 September 2013 held in Islamabad amongst many others.

I must congratulate our tireless Secretary-General and his very small team for their efforts to put these consultations together. They involve delicate negotiations, careful selection of key actors and perseverance but they achieve the task of engaging in dialogue which Pugwash has been committed to in the achievement of peace and understanding. The withdrawal of ISAF from Afghanistan next year opens fresh opportunities for Pugwash to work with our Afghan and other South Asian partners to ensure the security of that country and that region.

But there are also new issues that we have to be constantly alert to recognize and address where a more prominent role by Pugwash is possible. They include:

Firstly, Cybersecurity. I have spoken in Berlin on the Cyber-security issue on which we undoubtedly have expertise. The revelations of whistle blowers such as Manning, Assange and Snowden reveal how vulnerable we all are to the snooping by governments and their agencies. In the interest of international peace and security it is vital that cyber security must be assured and common norms, principles and regulations must be found on the international level. Breaches in computer systems could cause instability and even widespread chaos provoking further conflict and the use of force. We have a duty as an organization of scientists to maintain secure systems without perpetuating weapons of mass destruction and governmental systems which oppress their people. I call on national groups who have the expertise to join Prof Gotz Neuneck and me in drafting a programme of action for Pugwash to commence serious activity on cyber security as a parallel program on nuclear disarmament and regional conflicts. SIPRI cites one estimate of global public and private cyber-security spending as \$ 60 billion in 2011. “The USA was the biggest spender accounting for half of the total, and was the only country where the levels of public and private spending were almost equal.”

Secondly, Pugwash has resumed participation in the UNESCO’s world commission on the Ethics of Scientific Knowledge and Technology (COMEST) which is an advisory body and forum of reflection that was set up by UNESCO in 1998 and has the

mandate to formulate ethical principles that could provide decision-makers with criteria that extend beyond purely economic considerations. The President of Pugwash is ex-officio a member of this body and we have only recently re-activated our participation.

Currently, COMEST is working in several areas: environmental ethics, with reference inter alia to climate change, biodiversity, water and disaster prevention; the ethics of nanotechnologies along with related new and emerging issues in converging technologies including military robotics; ethical issues relating to the technologies of the information society; science ethics; and gender issues in ethics of science and technology.

Thirdly, I have sought and obtained the authority of the Executive Committee on bringing Pugwash into the steering committee on the campaign to stop killer Robots. The 'boffins' in arms laboratories are now engaged in a new and frightening phase of the arms race – the development of fully autonomous robotic weapons. With these weapons the world will see completely autonomous weapons with zero human participation on the battlefield. This will have huge consequences in terms of accountability and the implementation of international humanitarian law. Alerted to this weird manifestation of the arms industry a number of non-governmental organizations (NGOs) including the Pugwash Conferences on Science and World Affairs launched a campaign in London on April 23 to "Stop Killer Robots." We have also had meetings in New York on the margins of the UN's First Committee and will meet in Geneva next week when the CCW holds its next sessions.

Fourthly, following pressure from many delegations and civil society in which Pugwash played a prominent role, the NPT RevCon in 2010 endorsed 5 practical steps to make progress towards the goal of establishing a WMDFZ in the ME which include convening a regional conference to discuss the issue in 2012 and appointing a WMDFZ Facilitator. The conference on a MEWMDFZ was set to be held in Finland in December 2012, facilitated by Ambassador Jaakko Laajava Finnish Undersecretary of State who has been at our Istanbul Conference. However on November 23, 2012, the USA issued a unilateral statement postponing the December 2012 conference. The U.S. statement cited "present conditions in the Middle East" and the lack of agreement by participating states on "acceptable conditions" for the December conference. A Pugwash statement

was issued at the time regretting this decision. More recently a statement by myself and the SG dated 29th August 2013 said that "events in Syria reinforce the urgent need for a Middle East WMD Free Zone. The conference called for by the NPT Review Conference in 2010 for 2012 should be held with utmost urgency."

The International Panel on Fissile Material has released a new research report titled "Fissile Material Controls in the Middle East: Steps toward a Middle East Zone Free of Nuclear Weapons and all other Weapons of Mass Destruction". It suggests "possible initiatives for fissile material control that could serve as initial steps toward an eventual Middle East zone free of nuclear weapons and all other weapons of mass destruction. These initiatives include actions that Israel, the only regional state with nuclear weapons, could take towards nuclear disarmament; and measures of collective restraint regarding fissile material production and use to be taken by all states of the region to foster confidence that their civilian nuclear activities are indeed peaceful in intent and not being pursued as a cover to develop nuclear-weapon options.

For Israel, the initial steps proposed include ending production of plutonium and highly enriched uranium, declaring its stockpiles of these materials, and placing increasing portions under international safeguards as steps toward their elimination. The regional measures that are proposed would serve to bring a Middle East nuclear weapon-free zone closer and make the zone more robust when it is in force. These measures include no separation of plutonium, no use of highly enriched uranium or plutonium as fuel, and no national enrichment plants. It would greatly strengthen the global nonproliferation regime if these measures were adopted worldwide, including by the nuclear weapon states."

The failure to hold the Middle East WMD free Zone talks in December 2012 was a great disappointment. Unless these talks are held soon, the 2015 NPT Review Conference is doomed to fail jeopardizing the viability of the NPT itself and unraveling the package of Decisions adopted at the 1995 NPT Review & Extension Conference which I presided over.

Fifthly and finally, the Arctic is an area where a nuclear weapon free zone could be enforced. The Arctic has been vital to humanity's development, and history has a strange way of repeating itself. What is now the Bering Strait was once a land

bridge, across which humans migrated from Asia to the Americas. It promises today to be a maritime conduit for increased global commerce through the Arctic as human-induced climate change causes ice to melt and shipping lanes to open. This development has the potential to bring nations and peoples together for peace and development -- or to spawn dispute and conflict. Beyond its contribution to rising sea levels, the melting of the Arctic ice cap will facilitate the mining of resources, especially oil and gas, and lead to an increase in commercial shipping. The ownership of the resources and the sovereignty of Arctic areas, including the Northwest Passage, are already being contested. As someone who has devoted most of his working life to the cause of disarmament, and especially nuclear disarmament, I am deeply concerned that two nuclear weapon states -- the United States and the Russian Federation, which together own 95 percent of the nuclear weapons in the world -- face one another across the Arctic and have competing claims. These claims -- not to mention those that could be made by North Atlantic Treaty Organization member states Canada, Denmark, Iceland, and Norway -- may lead to conflict that has the potential to escalate into the use of nuclear weapons. Thus the Arctic is ripe for conversion into a nuclear weapon free zone. An all-encompassing Arctic Treaty, signed a half century after the Antarctic Treaty, would be a major achievement. To those skeptics who dismiss a wide-ranging agreement as unrealistic and impossible, let me quote the great Norwegian explorer, scientist, and Nobel Peace Prize-winning diplomat Fridtjof Nansen, who said, "The difficult is what takes a little time; the impossible is what takes longer." I congratulate the Canadian, Danish and Russian Pugwash national groups and others, including the First Nation indigenous groups, who are in the campaign for the realization of an Arctic NWFZ.

I have no doubt that there are other emerging areas in which Pugwash can and must play an active role given its scientific expertise and influence. I call upon National Groups to make concrete proposals, including ideas for possible financial resources, either through the Working Groups at this conference or at any future stage so that our collective talent can be harnessed to usher in a better world. Pugwash is a big tent which can accommodate all national groups working in unison for the causes we espouse.

Let us unite to achieve our common objectives.

Conclusion

Let me conclude. It was my privilege to represent Pugwash at the annual Nobel Peace Summit held in Warsaw last month. Speaking at the summit I was happy to pay tribute to the memory one of my illustrious predecessors Sir Joseph Rotblat in the country and city of his birth and to have that tribute greeted with applause.

The Final Statement of the 13th World Summit of Nobel Peace Laureates held in Warsaw, Poland titled "Stand in Solidarity for Peace – Time to Act" states as follows significantly echoing our Pugwash philosophy:

"When nations work for common goals great good can be achieved. Sustainable and inclusive development, security and human rights are interdependent. There is no option for failure when addressing the common threats posed by a destabilized climate, polluted oceans, denuded forests, violent conflicts, nuclear, biological and chemical weapons and war. Succeeding in eliminating these threats will achieve global common goods of the highest value. Failure to do so will impact the lives of every individual in every country. This truth must inform our understanding that human solidarity is a necessity. There can be no national security without shared human security."

The demography of the world is changing and we are seeing an increasing youth segment of society. Pugwash like all others must take cognizance of this. The UN SG in his 2013 report on the work of the organization said: "The largest generation of young people the world has ever known is hungry for opportunity, for jobs, for a voice in the decisions that affect them, for institutions and leaders that respond to their needs. They want to know that national and international institutions are on their side and can seize the opportunities of a world in flux." We have to appeal to the idealism of this younger generation as we did during the Cold War and to adopt a programme for Pugwash and make it relevant to them. The presence in our midst of Student Pugwash facilitates our task. Let us use this resource. Let us draw more young scientists into Pugwash.

Ladies and Gentlemen, fellow Pugwashites - a Turkish proverb says that "If speaking is silver; then listening is gold." And so you deserve the gold for the patient hearing you have given me.

Thank you!

The 61st Pugwash Conference

Nagasaki's Voice: Remember Your Humanity

1-5 November 2015, Nagasaki, Japan

Anniversaries

Once again a major Pugwash Conference coincides with many significant anniversaries in the history of global peace and security – on this occasion with strong links to our host country - Japan.

- ❖ It is the 70th anniversary of the United Nations Organization which underpins the prevailing global system of peace and security with its Charter and the framework of norms and values it upholds;
- ❖ It is the 60th anniversary of our bedrock document and surely one of the earliest formulations of the “Humanitarian Pledge” of today - the 1955 London Manifesto of our founding fathers Albert Einstein and Bertrand Russell - one of whose co-signatories was Professor Hideki Yukawa, the Nobel Physics Laureate from Kyoto University, Japan;
- ❖ And it is the 20th anniversary of the award of the Nobel Peace Prize jointly to Pugwash and to one of its founders Sir Joseph Rotblat three months after the Pugwash Conference held in Hiroshima in that year.

Anniversaries are not merely sentimental occasions. They are valuable opportunities for stocktaking - surveying the road traversed and preparing for the journey ahead.



The presentation of the Pugwash Nobel Peace Prize to the City of Nagasaki, 1 November 2015

On a more sombre note, we are observing the 70th anniversary of the dropping of the plutonium bomb “Fat Man” by the USA on the city of Nagasaki on August 9, 1945 killing 35,000–40,000 people outright with an eventual total of 60,000–80,000 fatalities, colossal property damage and environmental pollution. We pay homage to the memory of those who were killed. To the survivors of both Nagasaki and Hiroshima – the “hibakusha” - we express our solidarity and admiration for their tireless efforts to ensure that never again will the world witness the use of a nuclear bomb. We also admire the resilience of the city of Nagasaki to rebuild itself into the vibrant metropolis that it now is. It is important to remember other “hibakusha” – victims of nuclear weapon tests elsewhere such as in Kazakhstan.

Pugwash presentations

Many of you were present on the morning this Conference opened when officials of the Pugwash Conferences on Science and World Affairs presented globally recognized symbols of peace to the people of Nagasaki and Hiroshima in a special ceremony at the Nagasaki Atomic Bomb Museum. This ceremony formally marked the 70th anniversary of the bombing of Hiroshima and Nagasaki, the 60th anniversary of the Russell-

Einstein Manifesto, and the 20th anniversary of the Nobel award to the Pugwash Conferences. As the Press Release we issued on the occasion stated,

“As a reaffirmation of our international organization’s continuing commitment to work actively for a world free of nuclear weapons, the Pugwash Conferences on Science and World Affairs is placing on permanent loan gold-plated official copies of the Pugwash Nobel Peace Prize medal for display in the atomic bomb museums in Nagasaki and Hiroshima. We also are providing the original and a copy of the Nobel diploma for these displays,”

These symbols of peace are offered to the people of Nagasaki and Hiroshima, and especially to the hibakusha, as proof that the international community has heard their calls for peace and nuclear disarmament.

Nuclear Disarmament

Together with the Bomb dropped on Hiroshima earlier, on August 6, we have grim reminders of the *raison d’être* of Pugwash and our origins in the Cold War years when the horror of a nuclear holocaust hung over our heads. That spectre, with almost 16000 nuclear warheads being held today among nine nuclear weapon armed countries, remains perhaps even more ominous and immediate than ever before. Conflicts rage in various parts of the world with new anarchic non-state actors - some of them with medieval mindsets – seeking to acquire this most destructive and inhumane weapon ever invented. Rose Gottemoller, US Under Secretary of State for Arms Control and International Security and a friend of Pugwash, said as recently as on October 19 this year in Fairbanks, Alaska that, “The threat from these weapons is real and in fact, it may have increased due to the risk of terrorists seeking to acquire nuclear weapons.” She reminded us of President Reagan’s statement that a “A nuclear war can never be won and must never be fought.” Of course, what Rose Gottemoller could not say is that the only certain way to achieve President Reagan’s goal is to outlaw nuclear weapons through a Nuclear Weapon Convention which none of the nine nuclear weapon armed states are ready to do. Nuclear disarmament, therefore, remains our central task and we continue to focus on this priority through the Simons Symposium with which we began this Conference thanks to the generosity of the Simons Foundation. The gulf between the two major nuclear weapon armed nations - the USA and Russian Federation - has frozen progress in bilateral arms control and disarmament imperiling

even the agreements reached in the past such as the INF. The goal of a nuclear weapon free world in President Obama’s Prague Speech of 2009 has now, alas, become a mirage. Only international civil society maintains pressure for a Nuclear Weapons Convention supported by the UN Secretary-General and His Holiness the Pope.

The global situation and the Thucydides Trap

In his most recent book, “World Order”, published at the end of 2014, Dr. Henry Kissinger provided us with a historical analysis of a quest for a rule based global order. That quest has to be undertaken today in a world where in Kissinger’s words, “Chaos threatens side by side with unprecedented interdependence; in the spread of weapons of mass destruction, the disintegration of states, the impact of environmental depredations, the persistence of genocidal practices and the spread of new technologies threatening to drive conflict beyond human control or comprehension.” Thus in today’s world a rule based world order seems even more remote considering the diversity of emerging players and problems with no apparent centre of gravity. Even as the slowing down of the Chinese economy has its ripple effects globally proving how interconnected we all are, fatalistic predictions are made by commentators on the “Thucydides Trap”(recalling the history of the Peloponnesian War on the inevitability of war between the then established power Sparta and the aspiring power Athens) as if we are destined to repeat the mistakes of history. The recent visit of President Xi Jinping to the UK and the entry of Russia in the battle against ISIS in Syria are two examples of the co-operation that is possible among the Great Powers in the interest of world peace and stability. As Pugwashites, recalling the Russell-Einstein Manifesto, we can never accept the inevitability of war.

The contemporary global situation was also summarized by the UN Secretary-General in his Report on the Work of the Organization to this year’s UN General Assembly when it opened in September. He wrote – “During the past year, more people were displaced than at any time since the Second World War. Desperate migrants risked everything to flee from hunger, persecution and violence, only to meet with death, discrimination and greater desperation along the way. Conflict and crisis engulfed millions of people in Afghanistan, the Central African Republic, Darfur, the Democratic Republic of the Congo, Gaza, Libya, Iraq, Mali, Somalia, South Sudan, the Syrian Arab

Republic, Ukraine and Yemen. Millions faced the brutal tactics of violent extremists such as Boko Haram, Al-Shabaab and Da'esh/Islamic State in Iraq and the Levant (ISIL), while many foreign fighters found the message of such groups alluring enough to join their cause. Environmental degradation, pollution and resource depletion continued almost unabated around the globe. There was little progress on the long-stalled disarmament agenda. Countless people died of curable diseases, went to bed hungry, buried children who might have been saved with basic health care, and in many other ways suffered avoidable, unacceptable levels of deprivation, fear and hopelessness.”

In the face of this stark reality a Pugwash perspective on world affairs, and our emphasis on the common bond of humanity that binds us all, must be pursued vigorously in our traditional areas of activity and in the new areas that today's political, economic and technological developments have created – climate change, cyber security, terrorism, inequalities, the refugee crisis and other challenges. Not to do so would be tantamount to sitting on the laurels of the past including the 1995 award of the Nobel Peace Prize to Sir Joseph Rotblat and to Pugwash. It would also convert Pugwash into an anachronistic body out of touch with the times we live in. The slow progress in inducting new members globally, especially young scientists, and re-invigorating our national groups is linked to the poor climate for fund-raising. If Pugwash functions as a confederation of autonomous national groups interacting with each other at the regional level and with Pugwash International at the global level on specific initiatives our collective impact can be enhanced.

2015 Nobel Peace Prize and Democracy

We congratulate the Tunisian National Dialogue Quartet on their richly deserved Nobel Peace Prize this year. It rewards the country where the Arab Spring began and where democracy continues to sprout its tender shoots whilst elsewhere it has been blighted by harsh autocracy and civil strife aggravated by proxy wars and foreign interference. The importance of forging a genuine national consensus to protect the transition to democracy is borne out by the robust Tunisian coalition consisting of the country's largest labor union (UGTT), its employers' federation (UTICA), its lawyers' association and the Tunisian Human Rights Association.

Afghanistan and Cuba

Despite enormous odds Pugwash has persisted with quiet diplomacy – a forte of our veteran Secretary-General. In May this year the international media reported that Afghan government officials and [Taliban](#) militants began two days of meetings in Qatar. This was the subject of a New York Times Editorial by the Editorial Board on May 6, 2015 by the newspaper's Editorial Board which expressed satisfaction over the modest results of a meeting brokered by Pugwash. The Editorial concluded – “The tone of the meeting offered a sense of promise. The government's side included several women, and one told [The Journal](#) (WSJ) that she found the Taliban surprisingly forthcoming with all the delegates. The killing by the Taliban and the government hasn't stopped. But informal talks can, over time, pave the way to formal negotiations and possibly peace.”

Pugwash USA also played an unpublicized but significant role in the normalization of US-Cuba relations. From 7-13 September 2014, Dr. Jeffrey Boutwell, Secretary of US Pugwash, and his colleague Mavis Anderson of the Latin America Working Group (LAWG), helped organize a US-Cuba Hemingway Commemorative trip to Cuba that involved John and Patrick Hemingway, grandsons of Ernest Hemingway, and several prominent US marine biologists and environmental scientists. With woefully inadequate resources we continue to work in Afghanistan and elsewhere in the most difficult circumstances. My sincere congratulations and thanks to Professor Paolo Cotta-Ramusino and his team for this.

The United Nations

In its 70th year the UN remains the universal body which Pugwash upholds. Transcending individual state-centred approaches, the U.N. can take a synoptic view of issues highlighting a multilateral perspective with global interdependencies clearly delineated. And because these synoptic views are based on consensus, broader public acceptance is made easier. Over the seven decades of the U.N.'s existence we have seen many successes although major challenges remain. The achievement of the decolonization of scores of Asian and African countries; the focus on human rights and its mainstreaming in international relations; the emphasis on environment and sustainable development; on gender issues and the shaping of a co-coordinated response to globalization, to terrorism, climate change and other global challenges like HIV/AIDS are some of them.

At the same time the U.N. has been engaged in the prevention of conflict and, where conflict has broken out, in peacekeeping, peacemaking, peace building and disarmament. This is truly a collective achievement. But it also derives from a value base of the organization. Legitimacy and universality are the two pillars of the U.N. Beginning with the Charter which sets out the purposes and principles of the U.N. in Chapter 1 there has also been an ethical foundation built over the years. The Millennium Declaration adopted in September 2000 identified the shared values of the U.N. community as Freedom, Equality, Solidarity, Tolerance, Respect for Nature and Shared Responsibility. No change can affect these values, which represent powerful forces motivating humankind through history. They provide what might be called the collective legitimation of the U.N. helping the global body to build a normative structure. They have been the accelerators of human progress and the benchmarks for assessing the performance of the U.N. The U.N. is not merely a platform or a forum. It is a depository of values and ideals and an incubator of ideas. We thank the UN Secretary-General for his message to our conference read out to us by Under-Secretary-General Kim Won soo.

The JCPOA

One area where our long-standing efforts finally bore fruit is with the conclusion of the Joint Comprehensive Plan of Action (JCPOA) between Iran and the “Five plus One” on Iran’s nuclear programme. Over the years Pugwash had worked patiently and painstakingly for this result through consultations and discreet meetings at times when such meetings were unthinkable and could have caused their participants some discomfiture if disclosed. We congratulate all who contributed to the final result and appeal for good faith implementation of the JCPOA in all its aspects. As the Pugwash leadership stated in a Press release issued on July 14 this year –

“We welcome very much the reaching of an agreement on the Iranian nuclear program. The agreement strengthens the Non Proliferation Treaty, and contributes in important ways to security and stability in the Middle East region. It shows that there is no alternative to negotiations based on mutual respect, reciprocity and recognition of each other’s security concerns and legal rights. Attempting to “solve” the Iranian nuclear problem by military means would have had gravely negative

consequences for the already troubled Middle East and for the nuclear non-proliferation regime.

The negotiations involved the P5 + 1 States, and this meant in particular that constructive cooperation among them, and between them and Iran, was indispensable for solving difficult issues. It also shows that cooperation is also possible between Russia and Western countries. We hope that this cooperation will be extended into other areas.

What is important now is:

- a) to ensure constructive, businesslike and comprehensive implementation of the new agreement by all parties, while resisting attempts to derail it; and
- b) to take advantage of this diplomatic success to improve as much as possible political, diplomatic, and economic relations with Iran, and to contribute to building trust and improving relations among all States in the Middle Eastern region.

A direct sequel to JCPOA should be the dismantling of the BMD system in Europe which used, as its rationale, the threat from Iran thereby provoking the Russian Federation. We expect also to see Iran playing a constructive role in Middle East conflicts in the future and its invitation to Vienna for talks on Syria must be welcomed.

The NPT

While this aspect of non-proliferation was a success, 45 years after the entry into force of Treaty for the Non-proliferation of Nuclear Weapons (NPT) and 20 years after the Treaty was extended under my Presidency by the adoption, without a vote, of a package of Three Decision and a Resolution on the Middle East, the 2015 NPT Review Conference failed to adopt a consensus final document. Apart from persistent differences between the nuclear weapons states and non-nuclear weapon states, the failure to have any progress on achieving a Middle East Weapons of Mass Destruction Free Zone (MEWMDZFZ) and the failure to acknowledge the burgeoning Humanitarian Initiative were the main reasons. Inevitably questions are raised on whether the NPT can survive with such failures on fundamental issues. After the conference Secretary-General Paolo Cotta Ramusino and I issued a statement, which said –

“Differences over how to fulfill earlier agreed commitments, such as the convening of a

conference on a Middle East zone free of weapons of mass destruction were brewing for the past several years. The shielding by some states of the possession of nuclear weapons in the Middle East by a non-member of the treaty further complicated the dynamics of the treaty review process and is untenable. It was nominally on this basis that the US, UK and Canada blocked consensus on a final document.

Underneath such specific issues lies the broader conflict of narratives that is the biggest roadblock. Those states inside the NPT who possess nuclear weapons (the “P5”) proceed as though the 1995 indefinite extension of the NPT was equivalent to indefinite possession. Their limited “step by step” approaches frustrate the vast majority of the world’s nations who seek the elimination of nuclear weapons as promised in Article VI of the treaty. Meanwhile the P5 (with all the nuances and disagreements among them) remain frustrated that the progress they have made is not given credit, as they seek to revive the process of learning how to speak together on these issues, starting small for example with a glossary of common terms as a crumb from their table. This lack of significant disarmament at a time when most nuclear weapons states are modernizing arsenals smacks of complacency and it is dangerous given the revival of outdated Cold War thinking.

Recent moves forward to reframe the debate in humanitarian terms have resulted in 107 (now 121) countries supporting a document developed by Austria known as the "Humanitarian Pledge," which calls on states "to identify and pursue effective measures to fill the legal gap for the prohibition and elimination of nuclear weapons." However, the varying paths preferred by NGOs and governments on how to attain a nuclear weapons free world became mired in controversy and competition rather than opening up the field for creative multifaceted approaches. All paths toward a nuclear weapons free world can and should all be explored, whether they are step-by-step, bilateral, unilateral, a ban, a convention, etc. Most importantly we need real dialogue on these topics. Confronting the dangers of continued possession of nuclear weapons demands greater political will than was shown at the United Nations during the past month.”

With all nuclear weapon states modernizing their nuclear weapons the prospects for nuclear disarmament are bleak and non-nuclear weapon states who depend on nuclear deterrence are equally

culpable. There are rumours of a US-Pakistan civilian nuclear co-operation deal to parallel the US-India civilian nuclear co-operation agreement. Reports also claim that new US nuclear weapons are to be based in Germany. Meanwhile eight states have still to ratify the CTBT for it to enter into force and convert the fragile de facto moratorium on testing into a permanent legal norm.

Refugee flows, Sustainable Development and Climate Change



Fellow Pugwashites,

I have long believed that global peace and security rests on a tripod of military security commensurate with the self-defence needs of nations as permitted by Article 51 of the UN Charter; sustainable development; and human rights. The sad media images of thousand of displaced by conflicts streaming across Europe after braving hazardous sea voyages vividly proved that we have had the largest numbers of displaced following conflict since World War II. And yet on their arrival they are met with discrimination in the countries of temporary refuge they seek. The generosity of Chancellor Angela Merkel stands out as a shining example of leadership, compassion and our common humanity. The failure of the major powers and regional powers to agree on a settlement of the crises in Syria, Yemen and other countries in the Middle East and stop the flow of arms that is fuelling them is unconscionable. Greed for power and profits for the arms industry are the obvious drivers of conflict with global military expenditure estimated at \$ 1.8 trillion in 2014 - a sad contrast to the one billion of our fellow human beings living on under \$ 1.25 per day the acknowledged benchmark for absolute poverty. Annual expenditure on nuclear weapons alone is estimated at \$ 105 billion

or \$ 12 million per hour. This is scarcely what Article 26 of the UN Charter held up as an ideal - “to promote the establishment and maintenance of international peace and security with the least diversion for armaments of the world's human and economic resources”.

On economic development after the commendable progress achieved in meeting targets set out in the Millennium Development Goals (MDGs) in 2015 we have now to address the gaps. The proposed 17 Sustainable Development Goals (SDGs) and 169 targets developed by the Open Working Group of the General Assembly on Sustainable Development Goals will be at the heart of the post-2015 development agenda. Coming from a developing country I see the transformational impact of these goals and the human dignity that comes with it.

The international community has a historic opportunity to finalize a meaningful, universal climate agreement in Paris in December 2015. In so doing, we will build a safer, healthier, more equitable world for present and future generations. With the scientific expertise within the Pugwash Conferences on Science and World Affairs I am convinced that we can make a contribution to the Paris Conference.

Conclusion

As I conclude let me recall that this city of Nagasaki and the Glover Garden, where we were just yesterday, are linked to Puccini's great opera “Madam Butterfly” which many of us have seen on stages in various cities. The encounter between East and West need not have tragic results and the architectural beauty of the Dejima quarter of this historic city shows how constructive trans continental partnerships can be.

The proposal to have the Pugwash Conference in Nagasaki was conceived and discussed with Pugwash Japan for about three years. In fact I visited the site of the conference a year ago. I am personally delighted that this Nagasaki Conference has been such a splendid success. A great tribute must be paid to the Government of Japan, the Governor, the Mayor and the city of Nagasaki and of course to the team from Pugwash Japan led by Professor Tatsu Suzuki whose relocation to this city, after his magnificent work on the Fukushima crisis, was so fortuitous.

A big “Arigato Gozaimashta” to all of you!

The 62nd Pugwash Conference

Confronting New Nuclear Dangers

25-29 August 2017, Astana, Kazakhstan

Distinguished Guests, Fellow Pugwashites, Ladies & Gentlemen,

It is the 60th anniversary year of the Pugwash Conferences on Science and World Affairs. Almost two years have passed since we last met in a major Pugwash Conference. In my Presidential Address at every conference it has been customary for me to survey the contemporary global scene through the prism of Pugwash principles presenting a Pugwash perspective. Our previous conference was in Nagasaki where a nuclear weapon was last used by the USA on August 9, 1945 killing 35,000–40,000 people outright with an eventual total of 60,000–80,000 fatalities, colossal property damage and environmental pollution and health effects of a widespread and long-lasting nature symbolized by the heroic hibakusha. Since we met in Nagasaki it has been an eventful period not all of which augurs well for international peace and security.

The Nuclear Prohibition Treaty

This Pugwash Conference has been preceded by a more auspicious event. Earlier this year, on July 7, we witnessed the historic signature of a total ban of nuclear weapons through the bold and courageous initiative of several non-nuclear weapon states including Kazakhstan. The Treaty on the Prohibition of Nuclear Weapons, while yet to be ratified and implemented, is undoubtedly a historic step forward and gigantic leap for

humankind which Pugwash must applaud and support. For me personally at the end of a long career in multilateral disarmament I am deeply satisfied by this achievement of one of my life long ambitions. The delegitimation of all three categories of weapons of mass destruction is now a fait accompli. The physical elimination of these weapons is now our responsibility. Our conference in Astana is thus the first major multilateral event to celebrate this landmark treaty and I thank the host Government for giving us this opportunity.

I congratulate the International Campaign Against Nuclear Weapons (ICAN) and allied NGOs for their relentless campaign as well as the 122 nation states who moved the General Assembly resolution last year and saw it through every step of its implementation. Pugwash conducted an event on the margins of the conference. Ambassador Sergio Duarte followed the conference right through its duration making a plenary statement on behalf of Pugwash. At the conclusion of the conference Pugwash issued a statement welcoming the treaty. I also published an op-ed reflecting my personal views from which I would like to quote –

“ Several factors operate in favour of the future of the Treaty. First it has set a modest target of 50 ratifying states for entry into force rather than the 44 specifically named states in the CTBT including the USA. Second a history of comparable treaties show that the lapse of time between the first

surge of signatories and the totally inclusive nature of the Treaty may be long but the validity of the treaty as international law is undisputed. In the particular case of the NPT when the UN General Assembly adopted Resolution 2373 in 1968, endorsing the draft text of the Nuclear Nonproliferation Treaty (NPT), the vote was 95 to 4 with 21 abstentions. The 122 countries that voted for the adoption of the Treaty for the Prohibition of Nuclear Weapons are thus pioneers on a bold and exciting path combining security concerns with humanitarian interests.”

What next? Pugwash must lead the way with innovative strategies. Today 189 countries are party to the NPT which is the most widely subscribed to multilateral disarmament treaty. The 122 countries that voted for the adoption of the Treaty for the Prohibition of Nuclear Weapons are trailblazers on a bold and pioneering path combining security concerns with humanitarian interests. It was the collective voice of the public conscience and the speaking of truth to power – the awesome power of the nuclear weapon. The Preparatory Committee meetings and the actual 2020 NPT Review Conference must endeavour to reconcile the two treaties so that nuclear disarmament and non-proliferation are finally merged credibly. There can be no proliferation if the weapons themselves are banned.

Kazakhstan

We meet in the capital of Kazakhstan. The 550th anniversary of the [Kazakh Khanate](#) was celebrated in 2015 marking the genesis of the Kazakh nation. We are fortunate to have the pleasure and privilege of being visitors in this ancient land – the

Land of the Wanderers – heir to a centuries old traditional culture; a land that is at the same time a vibrant modern nation. It is a nation which since 1991 has been a trailblazer in international relations and in the specific area of building a nuclear-weapon free world.

The vision of a nuclear-weapon free world inspired the leader of Kazakhstan, President Nursultan Nazarbayev, long before it was announced by President Obama in his now famous Prague speech of 2009. Kazakhstan, Belarus and Ukraine were left with Russian nuclear weapons on their soil when the Cold War ended and the Soviet Union imploded.

The Lisbon Protocol to the [1991 Strategic Arms Reduction Treaty](#) was an agreement by representatives of [Russia](#), [Belarus](#), [Ukraine](#), and [Kazakhstan](#) that all nuclear weapons of the former [Soviet Union](#) on the soil of those four states would be destroyed or transferred to the control of Russia. All four states agreed to join the Treaty on the Non-Proliferation of Nuclear Weapons, with Russia the successor to the Soviet Union as a nuclear weapon state, and the other three states joining as non-nuclear weapon states.

The protocol was signed in Lisbon, Portugal, on May 23, 1992. Of the three countries Kazakhstan was the most meticulous in fulfilling its obligations and had surrendered all nuclear weapons to Russia by May 1995.

Another historic decision taken by Kazakhstan unilaterally was the closure of the nuclear weapons test site in Semipalatinsk where during the period 1948-89, 456 tests had been conducted by the then USSR with disastrous consequences to the

health of the people in the area and the environment – consequences that linger to this day. It is 26 years since that momentous closure of the site took place under the courageous leadership of President Nazarbayev. Since then, in an impressive example of international collaboration for peace and security, Kazakhstan, the Russian Federation and the USA have co-operated in the cleanup of the site.

On August 29 we memorialize that historic event by observing, as a result of an initiative at the UN by our host country, the International Day against Nuclear Tests. Moreover the [ATOM Project](#) initiated a "global moment of silence on that day to honour all victims of nuclear weapons tests".

Finally, in another major step towards building a nuclear weapon-free world, the Almaty Declaration of 1992 called for the declaration of Central Asia as a nuclear-weapon-free zone (CANWFZ). It was followed by the five Central Asian nations co-sponsoring a resolution in the 1997 UN General Assembly calling for CANWFZ and for the United Nations to assist in its creation.

Early in 1998 at the personal invitation of Kofi Annan, I assumed duties as Under-Secretary-General heading the newly re-established Department for Disarmament Affairs as a key element of the reforms made by Annan. It was thus my task to conduct the negotiations for the implementation of the CANWFZ resolution with the co-operation of the Central Asian states.

It was the first time the UN was directly involved in the negotiation of a nuclear-

weapon-free zone. We held discussions among experts from the five Central Asian states and then extended the scope to include the 5 Nuclear weapon states.

It had long been my personal conviction that nuclear-weapon-free zones are an invaluable mechanism in achieving progress towards a nuclear-weapon free world.

While the Treaty for the Nonproliferation of Nuclear Weapons (NPT) was signed in 1968 as a product of the Cold War with the USA and then USSR co-drafting it, fifty years ago in 1967 the Treaty of Tlatelolco was signed predating the NPT. It was a product of non-nuclear weapon states in Latin America and the Caribbean. It was affirmative action and a self-conscious act of rejecting nuclear weapons in the safeguarding of their national security.

Nuclear-weapon free zones are in fact quarantine zones to protect these countries from the nuclear weapon contagion. They have no nuclear umbrellas. They have no extended deterrence. But, they have, through a policy of self-reliance, adopted a nuclear weapon-free zone in order to protect themselves. Once states in a region have a consensus on a NWFZ the success of their efforts is assured.

To solidify this consensus in Central Asia I decided, with the support of Secretary-General Annan to visit the 5 Central Asian countries to ascertain that the political will did exist for a CANWFZ. That was my first visit to Kazakhstan in 2002.

All my visits to the Central Asian countries and my high level talks confirmed that a strong political will for concluding a CANWFZ did exist. Indeed we could have signed the Treaty in 2002 with Kofi Annan himself being present at the signing

ceremony in Semipalatinsk. Sadly that was not to be because of the obstructionist attitude of the Western nuclear-weapon states (NWS).

I ceased to be Under-Secretary General (USG) in 2003 but to my great satisfaction the opposition of the Western NWS was overcome and the CANWFZ was signed in 2006. I am also glad that the protocols to the Treaty were signed by the NWS at the NPT Review Conference in 2010. I take this opportunity to congratulate the Central Asian states, and in particular Kazakhstan, on their political courage and their persistence and dedication to achieving security without nuclear weapons in their own region.

Earlier this year, I was privileged to be invited to speak at the 50th anniversary of the Tlatelolco Treaty in Mexico City to convey the greetings of Pugwash on this memorable occasion. I am also glad that our Conference continues to have the Middle East Weapons of Mass Destruction Free Zone on our agenda as an essential part of the solution to the problems of that region.

We have miles to go in this journey towards a nuclear-weapon-free world. Kazakhstan is uniquely situated to make a dynamic contribution consistent with its achievements to date. Straddling the two continents of Europe and Asia it belongs to Organization for Security and Co-operation in Europe ([OSCE](#)) and to the [Shanghai Cooperation Organization \(SCO\)](#).

The spirit of the Helsinki Accords is desperately needed in both continents to achieve détente especially at this juncture. Kazakhstan has been elected as a non-permanent member of the UN Security Council for 2017-18 and, with Japan, is co-chair of the CTBT piloting the long overdue entry-into-force of this key Treaty. The launch of the Low-enriched Uranium Bank in Astana on 29 August is yet another achievement strengthening both the peaceful uses of nuclear energy pillar and the non-proliferation pillar of the NPT.

There are of course other steps in the journey to a nuclear-weapon free world apart from the creation of more NWFZs and the entry into force of the CTBT beginning with the immediate halt to the modernization of nuclear weapons by the nine states who own these weapons.

Militarism, the Rise of Populism and the Challenge to Democracy

We are at a transformational moment. Violence and conflict triggered by extremist ideologies and an arms race among great, regional and small powers result in a total of \$1686 billion or US \$ 220 per head on military expenditure alone in 2016. Nine nuclear weapon armed states with a total arsenal of 15,395 warheads, 4120 of them operationally deployed threaten the catastrophe of nuclear war launched whether as policy, by computer hacking or computer error. The application of Artificial Intelligence to weapon manufacture is accelerating and I am glad that in the “Stop Killer Robots” Campaign, where John Finney and I represent Pugwash, we have succeeded in having the CCW agree to setting up a Group of Governmental Experts to study the issue of Lethal Autonomous Weapons System (LAWS) which, hopefully, will lead to a convention banning these weapons.

Moreover, following a Pugwash proposal as an ex-officio member of UNESCO's World Commission on the Ethics of Scientific Knowledge and Technology (COMEST), a report is about to be produced by COMEST on the ethical aspects of autonomous weapons - as well as of modern robotics more generally.

The easy availability of arms and inadequate international co-operation facilitates the task of the terrorists who fall prey to beguiling nihilist ideologies. They cause the deaths and injuries of countless innocent victims which Pugwash, pledged as we are to peaceful dialogue, condemns unhesitatingly. No cause can justify this mindless violence.

Populism – a counterfeit or fake brand of democracy – is being enthroned in the West and other parts of the world. Growing intolerance of minorities is spreading, triggered by the largest wave of enforced displacement of refugees and migrants since World War II. Fear is being spread, hate speech by leaders is followed by hate crime and widening income disparities are exploited to fuel chauvinism. In the face of this widespread illiberalism we must, each of us, come to terms with accepting the need for tolerance, goodwill and equality. The rise of reckless leadership tapping into cheap popularity among the malcontents and instant communication modes like “tweeting” rather than wisely conceptualized policy statements is alarming. Aggressive nationalism and increased military expenditure leads to isolationism, beggar they neighbour policies and global tensions. We must build walls of defence against a rise of fascism. Fortunately the defeat of Le Pen in France signals the likely reversal of what once seemed a trend.

The deteriorating relations between the two major nuclear weapon states who possess 95% of the world's nuclear arsenal is alarming. Past agreements, such as the INF, are being questioned

and the likelihood of new agreements whether for arms limitation or arms reduction grows dimmer by the day. The Third Report of the Deep Cuts Commission has addressed the situation and made recommendations. The Nuclear Posture Review, a major strategic undertaking that will frame the Trump administration's nuclear policy, is expected by the end of this year. A new nuclear cruise missile, known as the Long Range Standoff weapon, or LRSO is expected to be its major feature apart from a greatly increased budget. Sanctions are being employed recklessly triggering off trade wars and other retaliatory measures. This encourages economic nationalism and the roll back of multilateralism as mutually beneficial multilateral trade pacts are torn up.

Climate Change, the Arctic and Pugwash

The announcement that the USA will abandon the Paris Agreement has been a major setback. All the years dedicated scientists from diverse countries within the International Panel for Climate Change (IPCC) spent researching and compiling their reports had led to the international consensus in Paris last year. In Antarctica just last month we had the largest iceberg being dislodged as a dramatic illustration of climate change.

The impact of climate change on the Arctic is a subject of great interest to me and which I am glad the Canadian Pugwash Group continues to pursue. The maintenance of peace and security in the Arctic is made urgent, and more complex, by ongoing rapid climate changes. For example, Arctic ocean currents are no longer stable due to the incursion of warmer water from the Atlantic Ocean and fresh water from glacier melt; the effect is global. To sustain peace in the Arctic, the international community will need to encourage co-operative governance and through that means support environmental adaptation, human security, beneficial resource exploitation, and retention of

the demilitarized status. The Arctic must be off-limits to nuclear weapons; the time is now for circumpolar nations to devise policies that include the aspirational goal of a nuclear-weapon-free Arctic. Inactivity on this carries significant risk.

In the 'new' Arctic, indigenous peoples deserve and want to participate; all circumpolar nations are increasing their military presence; and non-Arctic nations insist on a voice. Fortunately, there are multilateral agreements, e.g. the Search and Rescue Agreement of 2011, that recognize the necessity, in a very harsh environment, of cooperation for the common good. All are agreed that UNCLOS is the means of defining the seabed and ocean boundaries and claims for Exclusive Economic Zones. Military presence also entails regulatory support, search and rescue, assistance with environmental emergencies. The establishment of Nuclear-Weapon-Free-Zones, via a Treaty with UN-defined characteristics, has been useful in calming areas south of the equator, but only one NWFZ is in the northern hemisphere. Pugwash must recommend that an Arctic NWFZ is a next move that would strengthen legitimacy of total nuclear disarmament, precisely because, if it eventually developed to include two NWS, that would be a regional nuclear weapons convention. Therein lies the opportunity, for example, to test credible means of verification, learn means and resources required for storing fissile materials, and evaluate strategies.

Challenges to the formation of Arctic NWFZ are significant- only partial national territory would be involved; many circumpolar nations are NATO members, and United States and Russia are NWS. But, the right to pursue independent policies has been claimed by NWS and NNWS in NATO; Canada opposes the involvement of NATO in the Arctic. Non-Arctic nations, e.g. China, are deploying resources to enable major operations in the Arctic. Arctic Council observer nations include all other official NWS states, and also India. All have nuclear-weapon equipped submarines that could be deployed to the Arctic Ocean. The Arctic Council, at its formation in 1995, excluded all military and security issues, so it is not a viable

initiator or host for negotiations on Arctic NWFZ. The possible pathway to a nuclear-weapon-free Arctic can begin with the Non-Nuclear Weapon circumpolar states, who already comply with the United Nations NWFZ principles, working together on the formation of their own zone. Special provisions, such as the allowance for 'innocent transit' [UNCLOS, Art. 20] could allow the U.S. and Russia to sign on. For the international Arctic Ocean all NWS would need to sign NSA protocols.

The United Nations

Let me now move on to the United Nations. Throughout my life I have had an abiding faith in the United Nations Organization that, three years hence, will celebrate its 75th year. The foundation document of that unique world body – the Charter – is not only the bedrock of international law, but also the most inspiring document that can hold the international community together amidst its diversity and conflict. Individual countries and Governments are dominated by their separate concepts of national security whereas the UN has to weave 193 of these national security concepts of member states into a tapestry that will serve the common security of the global community in a cooperative and credible manner.

A new Secretary-General has begun his term at the UN with rich experience, wise leadership qualities and unalloyed idealism. He is ably represented at our conference by the High Representative for Disarmament Affairs Izumi Nakamitsu who read out his message to us at the opening of our Conference. We now have an opportunity to implement the principles of the Charter in an equitable manner. The first statement of Secretary General Antonio Guterres was simple and direct - "Peace must be our goal and our guide. All that we strive for as a human family – dignity and hope, progress and prosperity – depends on peace. But peace depends on us." No one country or group of countries outside the UN can claim to police the world with legal or moral authority.

The Intellectual History Project of the UN led by Sir Richard Jolly and others has documented the ideas launched by the UN system in the area of economic and social development alone. More recently the achievement of the Millennium Development Goals and the agreement on the Sustainable Development Goals for fulfillment in 2030 prove the capacity of the UN to set common targets and work together for the common development of all nations. It is a glimpse of the remarkable vision and creativity of the founders of the UN, which must remain, unchanged to inspire us and guide us. It shows how the UN in its economic and social development work has often been significantly ahead of governments, academics and other international institutions that later adopted its ideas. The capacity to generate these ideas must continue.

The UN is uniquely situated to be a vanguard of global public opinion. Transcending individual state-centred approaches, the UN can take a synoptic view of issues highlighting a multilateral perspective with global interdependencies clearly delineated. And because these synoptic views are based on consensus, broader public acceptance is made easier.

Over the seven decades and more of the UN's existence we have seen many successes although major challenges remain. The achievement of the decolonization of scores of Asian and African countries; the focus on Human Rights and its mainstreaming in international relations; the emphasis on Environment and Sustainable Development; on Gender issues and the shaping of a co-ordinated response to globalization, to terrorism, and other global challenges like HIV/AIDS are some of them. At the same time the UN has been engaged in the

prevention of conflict and, where conflict has broken out, in peacekeeping, peacemaking and peacebuilding.

We are still in the early years of the first century of a new millennium in the human saga leaving behind the bloodiest century of all time. There is a unique opportunity for us to use the indisputable authority that the UN wields to shape a world order that is built more solidly on ethics than on the pursuit of individual profit or national self-interest. In the year 2000 the largest ever gathering of Heads of State and Government met at the United Nations in New York and issued the historic Millennium Declaration. Significantly, before the Declaration embarks on setting objectives in respect of the different areas of peace, security and disarmament including the elimination of weapons of mass destruction especially nuclear weapons; development and poverty eradication; human rights, democracy and good governance including the Sustainable Development Goals; protecting the vulnerable and meeting the special needs of Africa, it addresses the issue of fundamental values underpinning international relations in the twenty-first century. That demonstrates a remarkably sound judgment of priorities. If the leaders of the world cannot agree on the ethical values that bind them together, they are unlikely to agree on common goals and common strategies to overcome what former Secretary-General Kofi Annan once called “problems without passports”.

It is relevant for us therefore, at this juncture to review these shared values set out in the United Nations Millennium Declaration as a common ethical base. They comprise six of the most basic aspirations of humankind -- freedom, equality, solidarity, tolerance, respect for nature, and shared responsibility. From each of these fundamental values we draw our guidance for the specific action plans that the international community committed itself to in the Millennium Declaration. It is a moral compass for us all. Individually these values represent powerful forces that have inspired and

motivated humankind throughout millennia of history. They have been accelerators of human progress. Collectively they represent the benchmark against which we must judge the performance of individual nations and as the world community in taking humankind forward to a better and safer world.

As we speak the conflict in Syria has gone on for countless years with civilian casualties and the actual use of chemical weapons. The “Astana Process” is helping in the search for solutions and I wish it all success. Proxy wars and new conflicts have arisen in the Middle East. They have only weakened support for the Palestinian cause one of the major injustices awaiting a solution. The Joint Comprehensive Programme of Action (JCPOA) painstakingly negotiated by the Five plus One with Iran has worked well and full compliance has been attested to by the IAEA. And yet determined efforts are being made to undermine it. North Korea’s rapidly advancing nuclear weapon and missile programme demands global attention and a multilateral effort to negotiate a political solution to it. Sabre rattling and the exchange of harsh threats will do no good and I call on Pugwash members in the region to take an urgent initiative.

Farewell to Pugwash

The regular rhythm of having quinquennials determining the mandate of the Pugwash Council and Executive Committee was changed when the Quinquennial due in 2012 was postponed for 2013 – ostensibly because of slender staff resources and even more slender financial resources. The Pugwash plenary was kept informed of this and granted us the covering approval that was constitutionally and democratically necessary.

Fellow Pugwashites, there is in any organization a time for entrances and a time for exits for those at the helm. After my retirement from the UN as Under-Secretary-General for Disarmament Affairs I was approached to accept the Presidency of Pugwash. Despite being honoured by this offer I was sceptical over my suitability having had no academic training, let alone distinction, in the hard sciences comparable to my distinguished predecessors. I therefore declined the offer and requested Pugwash to seek others more qualified than I. The offer was repeated some months later and I finally accepted it as an opportunity to continue my work for peace and disarmament especially nuclear disarmament. The Bari Conference in 2007 was my inauguration.

I assumed the Pugwash Presidency with huge ambitions for the organization but soon discovered that in an inhospitable climate for fund-raising and the astonishing democracy deficit within Pugwash I was reduced to a titular role with little impact. My ambitious proposals for institutional reform; the devising of a code of ethics for scientists engaged in the defence sectors of their nations (which I had addressed in my Dorothy Hodgkin Memorial Lecture in 2003), a major influx of new and younger members especially scientists; re-energising Pugwash offices in Geneva and Washington D.C; stronger bonds between Pugwash International and national groups and the addition or revival of new national groups – all alas, fell on stony ground. I am glad that I was able to visit national Pugwash groups in Canada, USA, United Kingdom, the Russian Federation, Japan, Switzerland and Germany (more than once in some cases) addressing audiences, holding media events and meeting Parliamentary and Governmental leaders. I am also glad that my personal association with the NPT enabled me to lead Pugwash into an energetic participation in the Review Conferences of 2010 and 2015. I wish I could have done more. Let me thank

Dr. Jennifer Simons and Dr. Vartan Gregorian for standing by Pugwash loyally.

The repair of the democracy deficit involves greater transparency of accounts and activities. We cannot hide behind the confidentiality of our bridge-building work to withhold the information which is routinely made available to the membership in other organizations. We also cannot attract more funds with an archaic style of administration. Most importantly I have always believed in term limits for those at the helm of any organization whether international or national; governmental or non-governmental. That is crucial in any democratically run organization and any compromise on this principle is disastrous. No one, and I mean no one, is indispensable. Bertrand Russell and Joe Rotblat came and went as Presidents despite their great contribution and global stature. I welcome and wish all success to the Pugwash reform movement that has just begun from within the Pugwash Council in co-operation with the national groups.

I am delighted that a friend of long standing from my days representing my country in the Geneva based Conference on Disarmament – the outstanding Brazilian diplomat Ambassador Sergio Duarte – has been invited to succeed me as President of Pugwash. Sergio has been Ambassador in several countries and was High Representative for Disarmament in the United Nations. His commitment to Pugwash and its principles is deep and sincere. I wish him all success. Pugwash for the first time has a President from the Latin American and Caribbean – and this in the 50th year anniversary year of the Treaty of Tlatelolco.

And so I have come to the end of my self imposed term of ten years as President and must heed my conscience and principles. I go well before the membership echoes the words of Oliver Cromwell of England in his address to the Rump Parliament on 20 April 1653 - “You have sat too long for any good you have been doing lately... Depart, I say; and let us have done with you. In the name of God, go!”

I leave the Pugwash Presidency while I still have your goodwill thanking the entire membership for their friendship and co-operation and wishing Pugwash many years of service to the international community in the spirit of the London Manifesto – “Remember your Humanity”.