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The growing significance of
nuclear armaments.

A challenge for the ethics of
peace and the political sphere.

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Foreword

The hope and expectation engendered by the end of the East-West conflict that there would be a progressive decline in the importance of nuclear armaments has proven unfounded. Although they have received little notice in the public sphere to date, the issues of nuclear armaments and nuclear deterrence and the peace and security policy problems they entail are once again of increasing importance. The doctrine of the Church concerning the limited and temporary legitimacy of nuclear armaments and nuclear deterrence under the ethics of peace has been clearly stated, which is why we are greatly concerned about current developments.

As a result of this situation, the German Commission for Justice and Peace is increasing its efforts pertaining to developments in the field of nuclear armaments and nuclear deterrence. In this regard, the "Just Peace" working group has presented a comprehensive appraisal of the situation. The positions espoused in Chapter III of this document, which deals closely with the conclusions to be drawn pursuant to the ethics of peace and the political sphere, have been adopted by the German Commission for Justice and Peace as their own.

It is our hope that we will be able with this document to make a contribution to the discussion of the prospects for nuclear disarmament which is so urgently required; it is already evident that it will be necessary to conduct this debate at a European and international level as well. The German Commission for Justice and Peace will utilise the opportunities at its disposal to foster this debate, for if we are to avoid weakening the prospects for security structures which offer long-term viability, it will be necessary to draw attention to and combat the trend towards the re-legitimisation of nuclear deterrence.

Archbishop Dr. Reinhard Marx
President of the German Commission for Justice and Peace

1. Regarding the position of the Catholic Church on the issues of nuclear armaments and nuclear disarmament

Doctrinal statements on questions of war and peace, not to mention numerous contributions made by moral-theological and social-ethical authors on this issue continued to be based on the traditional concept of "just war" until the 1960s. This was fundamentally conceived as a position from which it would be possible to use ethical arguments to "contain" the practically unrestricted use of military means for almost purely political considerations. The criteria developed in conjunction with the *bellum iustum* (just war) theory allowed a distinction to be drawn between what might be considered a justified use of force and the many manifestations where its use was to be condemned.

It was already clear during the two World Wars of the twentieth century that a proper evaluation of the actual methods of warfare on the basis of *bellum iustum* criteria would lead to the ethical condemnation of many of the means and methods employed in each case, which is why Pope Pius XII, in his Christmas Message of 1944, called for a ban on all wars of aggression, and proclaimed his belief that "the idea of war as an apt and proportionate means of solving international conflicts is now out of date"¹. Yet "the immorality of the war of aggression has been made ever more evident" by the use of "monstrous means of conducting hostilities"². From this perspective, recourse to the theory of just war leads to a substantive ethical criticism of current use of force, and does not result in the comprehensive ethical legitimisation thereof. In contrast, the lessons of "*bellum iustum*" were frequently utilised in the interests of political objectives in the past in a manner which all too often did not allow the potential of this theory to serve as a critical corrective to the political sphere regarding the utilisation of military means to come to fruition.

Pope Pius XII expressed his views on the utilisation of nuclear weapons on numerous occasions in the 1950s. His intention here was to warn against the heretofore unheard of destructive potential of a nuclear war, something which he stated in stark terms in his Easter Message of 1954, for example³. In an address to participants of an international medical congress in September of the same year, he made it clear that it was also

¹ Christmas Message of Pius XII, no. 63, available at: http://www.intratext.com/IXT/ENG1248/___P9.HTM.

² Christmas Message of Pius XII, no. 65-66, available at: http://www.intratext.com/IXT/ENG1248/___P9.HTM.

³ Cf. A.-F. Utz / J.-F. Groner (Hg.), *Aufbau und Entfaltung des gesellschaftlichen Lebens. Soziale Summe Pius XII.*, Fribourg 1954-1961 (= UG), no. 3849.

necessary to judge the utilisation of nuclear weapons on the basis of the traditional theory of "just war", and that it could only be considered "in such instances where conditions render it unavoidable for self defence"⁴. Even here, however, the following was to apply: "If, however, the utilisation of these means should result in an increase in this evil such that it would fully escape the control of man, its use must be condemned as being immoral. In this case it would no longer be a matter of 'defending' against injustice or of a necessary 'safeguarding' of rightful ownership, but simply the destruction of all human life within the affected area. This is not permissible under any circumstances"⁵.

With his demand that the use of nuclear weapons be "controllable", the Pope was simply following through on the concept that any use of force must at least be proportional – something which is by definition no longer the case when, as a result of its unique technical characteristics, it is simply not possible to utilise it in a manner which allows for a distinction to be made between combatants and non-combatants. Clearly Pius was not just formulating an urgent ethical necessity; he was also able to rely on a fundamental law of warfare which was long-established in humanitarian law whereby non-combatants may not only never be considered as legitimate targets of individual acts of war, but also that they are to be protected to the greatest possible extent against the damaging effects which are an unavoidable consequence of such acts.

In the ensuing debates that took place in the political sphere concerning this position, a thesis was repeatedly propounded that, seeing as any conceivable form of nuclear warfare must be condemned on the basis of the criteria arising from the *bellum iustum* theory, it must follow that this theory had become obsolete in the nuclear age. This meant that proponents of this view attempted to "save" the possibility of conducting nuclear warfare through a strategy based on bidding goodbye to a concept which, in light of the circumstances, offered the only opportunity for subjecting the threat or even the use of military force to at least some sort of normative restrictions.

It is for good reason that the Church's doctrine of peace has not followed this proposal at any time. Instead, the Second Vatican Council felt that it was necessary to strengthen the position set out by Pius XII by expressly condemning all forms of so-called "total war" in its Pastoral Constitution *Gaudium et spes* (1965): "Any act of war aimed indiscriminately at the destruction of entire cities or extensive areas along with their population is a crime against God and man himself. It merits unequivocal and

⁴ UG no. 5364.

⁵ *Ibid.*

unhesitating condemnation"⁶. However, it was not only the case of a calculated, planned and undifferentiated use of nuclear weapons that the Council had in mind, but also the possibility that this could result from a more or less rash process of escalation and the momentum entailed by the organised use of force which can be anticipated in wartime situations: "The unique hazard of modern warfare consists in this: it provides those who possess modern scientific weapons with a kind of occasion for perpetrating just such abominations; moreover, through a certain inexorable chain of events, it can catapult men into the most atrocious decisions."⁷

In the pastoral letters on peace presented by numerous national bishops' conferences and by the bishops' conference in the USA in 1983, this position was not only adopted, it was also examined and updated in light of the developmental processes in both the theory and practice of nuclear deterrence which had taken place to that time. In particular, the pastoral letter from the bishops in the USA examined the development of armament potentials in the East in West in great detail, as well as the military-strategic constellations and the political effects arising therefrom. Given the dangers of escalation entailed by nuclear warfare with even the most limited of intentions, the US bishops rejected any first use of nuclear weapons⁸. Their colleagues in the Federal Republic of Germany posed the following question: "Is not the danger of escalation from their use – however limited – so great that one cannot imagine any situation in which one could accept responsibility after consideration of all factors to use atomic weapons?"⁹

In light of such problems, it is understandable why discussions within the Church on the ethics of peace did not generally revolve around the permissibility of nuclear warfare, but rather on the question as to whether it should be allowed to maintain nuclear weapons not for military use, but instead for the purpose of deterrence, i.e. to prevent a

⁶ Pastoral Constitution on the Church in the Modern World, *Gaudium et Spes* (GS), no. 80, available at http://www.vatican.va/archive/hist_councils/ii_vatican_council/documents/vat-ii_const_19651207_gaudium-et-spes_en.html. This text refers expressly to the position take by Pius XII on 30 September 1954.

⁷ *Gaudium et spes* no. 80.

⁸ Cf. *The Challenge of Peace: God's Promise and Our Response*, A Pastoral Letter on War and Peace by the National Conference of Catholic Bishops, 1983, at <http://www.usccb.org/sdwp/international/TheChallengeofPeace.pdf>.

⁹ *Out of Justice – Peace*, published by the Secretariat of the German Bishops' Conference, Bonn, 1983, p. 60. The bishops in the German Democratic Republic – due in particular to fears of what the results of a war might be for the civilian population – were more direct here, cf. *Gemeinsamer Hirtenbrief zum Weltfriedenstag 1983* (= GH, Joint Pastoral Letter for World Peace Day), in: *Stimmen der Weltkirche* Bd. 19, published by the Secretariat of the German Bishops' Conference, Bonn 1983, 179: "In no war, no matter the reason for which it is being fought, can the utilisation of atomic, biological or chemical (ABC) weapons be justified." All bishops' conferences also made clear that the danger of devastation arising from escalation also pertained to a comprehensive use of modern, conventional means of warfare, cf. e.g. *Out of Justice – Peace* 55, Joint Pastoral Letter for World Peace Day 179, *The Challenge of Peace: God's Promise and Our Response* 85; also the pastoral letter from the French bishops, "Gagner la paix", ("Den Frieden gewinnen") in: *Stimmen der Weltkirche* Bd. 19A, published by the Secretariat of the German Bishops' Conference, Bonn 1983, 6.

war in which such weapons might be used. The Council had already taken a position regarding this utilisation of military means, something which literature commenting on this position sometimes referred to as its "political" role in order to distinguish it from its "military" significance:

"Whatever be the facts about this method of deterrence, men should be convinced that the arms race in which an already considerable number of countries are engaged is not a safe way to preserve a steady peace, nor is the so-called balance resulting from this race a sure and authentic peace. Rather than being eliminated thereby, the causes of war are in danger of being gradually aggravated. While extravagant sums are being spent for the furnishing of ever new weapons, an adequate remedy cannot be provided for the multiple miseries afflicting the whole modern world. Disagreements between nations are not really and radically healed; on the contrary, they spread the infection to other parts of the earth. [...]

The arms race is an utterly treacherous trap for humanity, and one which ensnares the poor to an intolerable degree. It is much to be feared that if this race persists, it will eventually spawn all the lethal ruin whose path it is now making ready.

Warned by the calamities which the human race has made possible, let us make use of the interlude granted us from above and for which we are thankful to become more conscious of our own responsibility and to find means for resolving our disputes in a manner more worthy of man. Divine Providence urgently demands of us that we free ourselves from the age-old slavery of war. If we refuse to make this effort, we do not know where we will be led by the evil road we have set upon".¹⁰

The Council did not issue an unqualified condemnation of deterrence as a means of preventing warfare, but it did warn that this might have counterproductive consequences even in the medium-term. The arms race which is inevitably entailed, and the resulting consumption of resources that are urgently needed for the purpose of promoting sustained development in poorer countries and which might thus reduce the level of international injustice, as well as the continuing conflict situations and incidents of spreading conflict make this method of preventing war, when seen in its entirety, appear to be a "calamitous path" which threatens to lead to the very warfare which it purports to prevent. At the same time, such a system of permanent deterrence can only be overcome if it is possible to successfully overcome the institution of war itself. This

¹⁰ Gaudium et spes no. 81.

demand would subsequently become one of the defining areas of common ground in the formulation of fundamental positions pertaining to the ethics of peace by the Christian Churches in the Ecumenical Assemblies in the late 1980s.

In addition to scepticism regarding the ethical justification of nuclear deterrence in light of its negative effects on other areas of the political sphere which are highly relevant to the ethics of peace, there is another criticism of note: Just how realistic was it to draw a precise linguistic distinction between the "political" and the "military" utilisation of nuclear weapons without giving closer thought to the manner in which each is dependent upon the other? The "political" effect – prevention of war through deterrence – was closely intertwined with the fact that actual military utilisation was at the very least conceivable under certain circumstances. This in turn required a wealth of technical and organisational precautions and procedures which justifiably gave rise to the question as to whether, in the event that the specified conditions actually came to pass, there would still be an opportunity to prevent the military use of this deterrent potential, or even to limit it pursuant to political guidelines. This danger of escalation, something which almost no one denied, played a decisive role in this sceptical judgement.

In spite of these fundamental objections to the moral legitimacy of nuclear deterrence, the development of the official position of the Catholic Church – in line with the basic framework formulated by the Council – did not aim towards the immediate and unilateral abandonment of the means of nuclear deterrence, but rather towards a universal move to overcome nuclear deterrence at the earliest possible date. As a result of the ethical concerns to which it gave rise, there was no discussion of any temporary acceptability of deterrence, but instead only of its "tolerability" under conditions which were to be very precisely defined. A central point of reference in this regard was the message of Pope John Paul II to the General Assembly of the United Nations on the occasion of the Second Special Session of the United Nations devoted to Disarmament in June 1982 in which he said: "In current conditions "deterrence" based on balance, certainly not as an end in itself but as a step on the way toward a progressive disarmament, may still be judged morally acceptable"¹¹.

¹¹ Quotation from: Message of Pope John Paul II to the General Assembly of the United Nations, no. 8, available at http://www.vatican.va/holy_father/john_paul_ii/speeches/1996/documents/hf_jp-ii_mes_07061982_gen-assembly-onu_en.html.

In their declaration on peace of 1983 the bishops of the Federal Republic of Germany summarised the conditions for the limited toleration of deterrence in the following demands:

- "Existing or planned military means must never render war more feasible or more probable, [...]
- Only such military means and so many military means may be deployed as are necessary for the purpose of the deterrent aimed at preventing war, [...]
- All military means must be compatible with effective mutual arms limitation, arms reduction and disarmament"¹².

This formulation is clearly reflective of the perspective of the East-West conflict which was dominant in the 1980s, one which saw the task of preventing warfare through deterrence overwhelmingly in terms of bipolar structures. Both the end of the Cold War and the growing dangers resulting from the processes of nuclear proliferation arising from states and from non-state organisations give rise to the question as to how the three aforementioned criteria – whose relevance (as is clear from the formulation) is not limited to nuclear deterrence – can be observed to the greatest degree possible in today's more complex environment. In their statement "A Just Peace" (September 2000), the German bishops reacted to these developments by not only honouring the arms control and disarmament agreements which had since been concluded, but also by warning against the "unabated" arms race which also pertained in the conventional sector as well¹³. It was in this regard that they urged that "the obligations undertaken by all signatory states of the Non-Proliferation Treaty must be carried out to the letter. It is particularly important that materials and technologies with nuclear potential are subjected to strict international controls"¹⁴.

¹² Out of Justice - Peace p. 58.

¹³ Cf. A Just Peace, published by the Secretariat of the German Bishops' Conference, Bonn, 2000, no. 130.

¹⁴ Cf. A Just Peace, published by the Secretariat of the German Bishops' Conference, Bonn, 2000, no. 132.

In addition, other bishops' conferences¹⁵, including those from Japan¹⁶ and the South Pacific¹⁷, as well as the Vatican¹⁸ have spoken out against the policy of nuclear deterrence since the end of the Cold War, sometimes repeatedly, and against the arms dynamic it entails. It was only recently that the bishops of the Catholic Church in Scotland issued a strong declaration against the programme of modernising the United Kingdom's nuclear submarine fleet.¹⁹ In July 2007 Pope Benedict XVI recalled the 50th anniversary of the establishment of the International Atomic Energy Agency (IAEA), which enjoys the full support of the Holy See, and stated that: "The epochal changes that have occurred in the last 50 years demonstrate how, in the difficult crossroads in which humanity finds itself, the commitment to encourage non-proliferation of nuclear arms, to promote a progressive and agreed upon nuclear disarmament and to support the use of peaceful and safe nuclear technology for authentic development, respecting the environment and ever mindful of the most disadvantaged populations, is always more present and urgent."²⁰

The following considerations are therefore intended, on the basis of the fundamental options of the Church's ethics of peace, to describe the specific challenges facing current efforts to achieve arms controls and disarmament in the field of nuclear arms, to present the importance of the processes of modernisation pertaining to nuclear

¹⁵ Cf. e.g. the position taken by US bishops in "The Harvest of Justice is Sown in Peace", A Reflection of the National Conference of Catholic Bishops on the Tenth Anniversary of The Challenge of Peace, 17 November 1993, available at: <http://www.usccb.org/sdwp/harvest.shtml>, and the declaration of the Catholic bishops of England and Wales: "Statement on the Elimination of Nuclear Weapons" of 12 November 1997, available at <http://www.catholicchurch.org.uk/cn/97/971114f.htm>, as well as the Catholic Bishops' Statement on the Elimination of Nuclear Weapons, 20 November 1998, available at <http://www.catholicchurch.org.uk/international/NuclearWeapons20.11.98.htm>.

¹⁶ Cf. Japan bishops appeal for the abolition of nuclear weapons, in: Asia Focus, 14 July 1995, 3; Bishops ask nations to destroy nuclear weapons, in: Union of Catholic Asian News – Daily Service, 24 June 1998.

¹⁷ Cf. Nuclear Testing in the Pacific. A Statement by the Catholic Bishops' Conference of Oceania (representing the thoughts of ninety Catholic bishops from 23 countries around the Pacific), in: South Pacific (1995) No. 15, 25.

¹⁸ Archbishop Renato Martino, who was at that time the Vatican's Permanent Observer at the United Nations, issued a declaration there on 15 October 1997: "If biological weapons, chemical weapons and now landmines can be done away with, so too can nuclear weapons. No weapon so threatens the longed-for peace of the 21st century as the nuclear [weapon]. Let not the immensity of this task dissuade us from the efforts needed to free humanity from such a scourge" (quoted in: The Morality of Nuclear Deterrence. An Evaluation by 75 Pax Christi Bishops in the United States issued on the 15th anniversary of The Challenge of Peace, God's Promise and Our Response, available at: http://www.ccnr.org/pax_christi.html).

¹⁹ Cf. Nuclear Weapons, Replacing Trident – A Scottish Catholic Response with an Introduction by Cardinal O'Brien, in: Justice and Peace, Archdiocese of St. Andrews and Edinburgh, <http://www.paxchristi.org.uk/SecurityDisarmament.html>.

²⁰ Benedict XVI, Angelus at the Papal Summer Residence, Castel Gandolfo, Sunday, 29 July 2007, http://www.vatican.va/holy_father/benedict_xvi/angelus/2007.

armaments and their dangers vis-à-vis these challenges, and to lay out a framework for political action via which an "ability to disarm" can be established for newly created and existing nuclear arms potentials. Finally, a number of concrete problems shall be formulated which must urgently be faced in order to make these objectives reality.

2. The problem of nuclear armaments since the end of the East-West conflict

In retrospect, in spite of all of the risks and problems which it entailed, and which were particularly evident during the Cuban missile crisis of 1962, the situation that prevailed during the East-West conflict, where nuclear deterrence obtained overarching political importance, appears to be relatively clear in structure, straightforward and calculable. Apart from the USA (1944) and the Soviet Union (1949), there were only a few other nuclear powers: the United Kingdom (1952), France (1960), China (1964) and India (1974). It has also been necessary to assume that Israel be counted among the states with nuclear capabilities for quite some time now. As part of the establishment of the Nuclear Non-Proliferation Treaty (NPT) in 1968 and the improvement in US-Soviet relations, many states which had been pursuing nuclear arms programmes ceased these efforts during the 1960s.²¹ Although there were times when tensions were extremely high, by and large the actions of the USA and the Soviet Union demonstrated that they were well aware of the risks, and they were able to maintain sufficient control over their arsenals. France and the United Kingdom were equally determined to ensure that their possession of nuclear arms was accompanied by a political rationality aimed at the avoidance of nuclear confrontation.

China and India, while nuclear powers, were not clearly part of the structure of the East-West conflict and thus posed a certain element of uncertainty; but they did not participate in the nuclear arms race between East and West (something which also applies to Israel, albeit under different circumstances). In addition, although there are unresolved border conflicts between them, China and India refrained from a nuclear arms race well into the 1990s. This situation gave rise to a certain, though limited, sense of stability and security. While the end of the East-West conflict and the arms control and disarmament measures which accompanied it seemed for a time to herald the imminent elimination of nuclear deterrence, new security policy challenges soon hove into view with which the participants had never, or only rarely, been confronted during the Cold War.

This document will be taking a look at the positive and negative developments in the areas of negotiated nuclear arms controls and disarmament (2.1), unilateral arms policy measures (2.2) and the policy of the non-proliferation of nuclear arms (2.3), comparing

²¹ This issue is dealt with in more detail by Harald Müller in: Nuclear Nonproliferation. A Success Story, in: XIII International Amaldi Conference on Problems of Global Security, Rome, Accademia Nazionale Dei Lincei 2001, 17-26.

and evaluating each. The changes in the field of nuclear armaments which have taken place since the end of the East-West conflict are then subjected to the necessary systematic reflection (2.4) which identifies the attendant problems that are of central importance, and what can be done about each.

Negotiated measures are fundamentally preferable to unilateral measures in the field of arms policy and controls. While unilateral measures can be implemented very quickly under some circumstances, they generally do not achieve the degree of commitment which is entailed by more conventional agreements containing reciprocal obligations – this means that they can also be changed more quickly if this is called for by an updated evaluation of the situation. On the other hand, unilateral steps can create important incentives for the negotiation of reciprocal agreements. These measures must in particular include technical decisions pertaining to the modernisation of armaments and further development of the nuclear arms doctrine of a country in possession of nuclear weapons. These can be deemed to be positive if the expected result is that the security situation of all involved will be improved, and if they not only do not reduce the chances for arms control and disarmament, but even increase them. This means that unilateral arms policy steps are not simply to be dismissed out of hand without detailed examination; instead – as with negotiated arms control and disarmament measures – they are to be evaluated on the basis of their concrete effects according to the criteria of "general dissuasive effect", "crisis stability" and "damage limitation" in the event that deterrence should fail.

There is, however, a very important caveat: whenever arms policy, and arms control policy, measures are limited to the continuation of mutual deterrence without offering the prospect of overcoming this system of preventing war (something which is generally the case), the objections on principle which can be raised on the basis of the ethics of peace against this system of deterrence shall continue to be valid (cf. Section I.). In particular, even the maximum stabilisation of this system of deterrence against technical or human failure, against misjudgement and much else besides cannot offer a guarantee that this system for preventing war will not fail. It is also possible that the aforementioned criteria will give rise to conflicting objectives: some measures which are intended to increase stability and limit damage during crises can stand in the way of preventing war by deterrence, just as efforts to prevent war by deterrence can run counter to these efforts to increase stability and limit damage. While the conventional logic of this system allows such conflicting goals to be minimised, it does not provide the means to reconcile them in a satisfactory manner. These not insubstantial risks, inherent to nuclear deterrence, are among the decisive reasons that this system "is not a

safe way to preserve a steady peace"²², and that the ethics of peace entail that while it can be tolerated for a limited period of time, it can never be approved of.

2.1 Negotiated arms control and disarmament

2.1.1 Positive developments

INF Treaty:²³ The Intermediate Range Nuclear Forces Treaty (INF) was signed by the USA and the USSR in 1987, and came into force in 1988. This treaty is to remain in force indefinitely, yet its verification regime, which also included on-site inspections, ended in 2001 pursuant to the terms of the agreement. This agreement required the destruction of all ground-launched ballistic and cruise missiles worldwide with ranges of between 500 and 5,500 kilometres possessed by the USA and the Soviet Union by 1991. In total, the USA destroyed 846 missiles and the Soviet Union destroyed 1846 missiles. The government of the Federal Republic of Germany demonstrated its support for this treaty with the destruction of its 72 Pershing-1A missiles, even though this was not stipulated under the terms of the treaty. This considerably reduced the level of nuclear threat in Europe.

START Treaties:²⁴ The START (Strategic Arms Reduction Treaty) process, which began in 1982, aimed to achieve a reduction in the actual strategic offensive potential of the Soviet Union and the USA on the basis of the parity principle. The negotiations conducted previously on the limitation of strategic arms (SALT – Strategic Arms Limitation Talks) were directed more towards controlling the additional build-up of arms, as it was hoped that this would result in a stabilisation of the mutual deterrence situation. The START I treaty was signed in mid-1991, and took effect in 1994. It is to remain in force for fifteen years, and can be extended for successive five year periods. START I calls for a reduction in strategic offensive arms to 1,600 launching systems (strategic bombers, sea- and land-based intercontinental missiles) with 6,000 warheads for each party to the treaty. Together with the Lisbon Protocol of 1992, this treaty played an important role in the complete denuclearisation of Kazakhstan, Ukraine and Belarus. These countries agreed, in compliance with the agreed limits on the part of the USA and Russia, to eliminate all their nuclear weapons by no later than the end of 2001. This agreement includes a comprehensive verification regime. The START II Treaty, which, although it was signed in 1993 did not take effect until 2000 following

²² Gaudium et spes 81.

²³ Cf. supra, Intermediate Range Nuclear Forces, <http://www.fas.org/nuke/control/inf/index.html>.

²⁴ Cf. supra, Comparison of START Central Limits, <http://www.fas.org/nuke/control/start-comp.htm>.

delayed ratification by the Russian Duma, was intended to reduce the number of warheads to no more than 3,000 or 3,500 for each party in two phases. This treaty was not only intended to achieve future reductions in their arsenals, but also to improve strategic stability through a comprehensive ban on multiple warheads for land-based intercontinental missiles, as these are particularly destabilising. Negotiations for START III began in 1998; the objective was to achieve a further reduction in strategic warheads. The USA proposed a limit of 2,000 to 2,500 warheads, while Russia called for a limit of 1,500. These negotiations lead to the SORT (Strategic Offensive Reductions Treaty) Treaty under President George W. Bush.

SORT Treaty:²⁵ This treaty for the reduction of strategic offensive weapons, signed in May 2002, takes the place of the START III Treaty that had originally been planned, and is intended to reduce the number of offensive nuclear weapons held by the USA and Russia to between 1,700 and 2,200 warheads by the year 2012. The agreement only approximates the parity principle due to the fact that Russia is no longer fully capable of achieving the highest US limits. However, this treaty permits the storage of the decommissioned warheads. The time schedule for disarmament, as well as the accompanying verification regulations, are not included within the treaty. The parties shall hold meetings twice each year in Geneva in order that any problems with the treaty and the status of implementation may be discussed. This treaty shall lose force once both parties have achieved and maintained the prescribed limits. The value of this treaty has been called into question by experts, and an important reason for this is the lack of a verification mechanism and the fact that warheads may be recommissioned.

Comprehensive Nuclear Test-Ban Treaty: The Comprehensive Nuclear Test-Ban Treaty (CTBT) was signed in 1996. It calls for a worldwide ban on all nuclear weapons tests, with the intention thereby of reducing the nuclear weapons capabilities of all nuclear-weapon states over time. This means that it is of particular importance that all nuclear-weapon states become party to the agreement. Even though this treaty has yet to take effect officially, it has – with the exception of the North Korean nuclear test conducted in 2006 – been complied with informally by all nuclear powers since 1998. 177 nations had signed the treaty by 2007, and 137 had ratified it, including the nuclear powers France (1998), the United Kingdom (1998) and Russia (2000), yet this treaty cannot come into force until all 44 states included in Annex II have ratified it. Of these, the USA, China, Israel, Columbia, Egypt, Indonesia and Iran have only signed, but not ratified, the treaty, while India, Pakistan and North Korea have done neither.²⁶

²⁵ Cf. supra, Strategic Offensive Reductions Treaty: <http://www.fas.org/nuke/control/sort/index.html>.

²⁶ Cf. for the status of the treaty: <http://disarmament.un.org/TreatyStatus.nsf>.

Strategic measures to build trust and increase security between India and Pakistan: In 1991, India and Pakistan reached an agreement that they would not militarily attack the nuclear facilities of the other party, and in 1996 they exchanged initial lists of their nuclear installations.²⁷ Each of these countries also agreed to a mutual exchange of information on their missile launches in 2003 in order to reduce the risk of war starting accidentally. They also began negotiations for the peaceful resolution of the Kashmir problem at the same time.

Other measures: The USA and Russia have also concluded other confidence-building measures in the field of strategic weapons systems. In 1987 an agreement was reached to set up Nuclear Risk Reduction Centers (NRRC) in Moscow and Washington in order to reduce the likelihood of an accidental nuclear war.²⁸ This also included de-alerting, i.e. lowering the level of alert and the readiness to rapidly launch strategic weapons, resulting in a considerable reduction in the probability of an accidental launch. In addition, both countries reached an agreement in 2000 to set up a joint centre for the provision of information on planned missile launches and to start exchanging data on each party's early warning systems.²⁹

2.1.2 Negative developments

No arms controls or disarmament for tactical nuclear weapons: The arms control and disarmament negotiations for tactical nuclear weapons in Europe which had been envisioned for the late 1980s/early 1990s have yet to take place as a result of the unilateral initiatives undertaken by US President George Bush (Sr.) and the General Secretary of the Communist Party of the Soviet Union, Mikhail Gorbachev in Autumn 1991 relating to the withdrawal and repatriation of troops and tactical nuclear weapons by the USA and the USSR.

No cut-off negotiations: These negotiations were intended to supplement the Comprehensive Nuclear Test-Ban Treaty by obligating all states to cease the production of weapons-grade uranium and plutonium. While the intention was for them to begin in

²⁷ Cf. supra, Pakistan Nuclear Weapons - A Chronology, <http://www.globalsecurity.org/wmd/world/pakistan/nuke-chron.htm>.

²⁸ Cf. supra, Nuclear Risk Reduction Centers (NRRC), <http://www.fas.org/nuke/control/nrrc/index.html>.

²⁹ Cf. Memorandum of Understanding on Notifications of Missile Launches (PLNS MOU) and 2000 Memorandum of Agreement Between the United States of America and the Russian Federation on the Establishment of a Joint Center for the Exchange of Data from Early Warning Systems and Notifications of Missile Launches (JDEC MOA), <http://www.state.gov/t/ac/trt/>.

1996 in the Conference on Disarmament (CD) in Geneva, as proposed by US President Clinton in 1993, this has still not occurred. A global accord of this nature would help to prevent the creation of new nuclear powers while limiting the further expansion of existing nuclear arsenals. There is still no agreement as to whether, and to what degree, existing stocks of weapons-grade fissile materials possessed by the nuclear-weapon states are to be included, nor on the general question of how such an agreement would be verified.

Comprehensive Nuclear Test-Ban Treaty cannot come into force: The US Congress refused to ratify the Comprehensive Nuclear Test-Ban Treaty in 1999, something which has had grave consequences for the future of nuclear disarmament, for without the signature of the strongest nuclear power, the fate of this agreement shall remain in limbo indefinitely.

START II Treaty takes effect later than planned, and is then revoked two years later: As a result of tremendous resistance by old communist forces in the Duma, Russia was only able to ratify the START II Treaty and put it into effect in 2000 after pressure was applied by its new President, Vladimir Putin. This meant that the drive towards strategic arms controls by the USA and Russia lost much of the momentum which it had still had in the first half of the 1990s, while also strengthening the position of conservative critics of these arms control efforts in both the US Congress and in conservative scientific institutes in the USA. As a result of the USA's withdrawal from the Anti-Ballistic Missile Treaty in 2002, Russia made good on its announced intention to withdraw from the START II Treaty which it had ratified only shortly before. The mutual verification of strategic nuclear weapons by Russia and the USA has been conducted solely on the basis of the conditions of the START I Treaty since this time. Further reductions in warheads by both sides are only taking place within the framework of the SORT Treaty negotiated in 2002. However, this agreement does not provide for any binding means of verification.

ABM Treaty is abrogated: The US Government abrogated the ABM Treaty in 2002 in order that it would be free to pursue its plans for a strategic missile defence system without being subjected to the restrictions contained in this treaty. US President Bush justified this decision with the argument that the number of states possessing nuclear weapons had increased, and that even more states had ambitions of joining their ranks. In contrast to the relationship with Russia, the USA must expect that attempts will be

made to blackmail it using nuclear weapons in future.³⁰ With the discontinuance of this treaty, something which Russia only accepted with great reluctance, the instability of nuclear deterrence is set to increase again over time, fuelling the strategic nuclear arms race for both offensive and defensive weapons. The first signs of this process can already be seen, particularly in China's arms build-up and to a lesser degree in Russia as well. The USA has had an ABM system in Alaska since 2005, but its technical reliability is still considered to be very low. The USA is working with Japan to develop a sea-based missile defence system based on the SM-3 missile for use on Aegis warships which can be utilised against North Korean and Chinese medium-range missiles (especially for the defence of Taiwan). Australia and South Korea may also end up participating. In Israel, the USA is supporting the development of that country's Arrow missile defence system. In Europe, the USA is hoping to set up new missile defence systems by 2011 based on the system being used in Alaska – these would be deployed in the United Kingdom, Poland and the Czech Republic. Russian President Putin has made a counterproposal based on the Russian systems, but has not yet succeeded in overcoming existing differences.³¹ Meetings are scheduled to take place between the USA and Russia, as well as in the NATO-Russia Council for this purpose.

START I Treaty expires at the end of 2009, while the SORT Treaty expires at the end of 2012: The expiration of these two treaties could result in the end of strategic arms controls, heralding the start of a new strategic arms race amongst the nuclear powers and reducing international security and stability.³² US strategic missile defence plans could even reinforce this negative trend. At Moscow's behest, the USA and Russia began negotiations on possible successor agreements in mid-2006, concluding an initial and somewhat vague accord in July 2007.³³ This calls for the conclusion of a post-START arrangement defining the lowest possible level of strategic offensive weapons which is in agreement with the individual national security interests and alliance commitments of each party, and expressly refers to the obligations pursuant to Article 6 of the NPT; it does not however contain any other concrete commitments.

³⁰ Cf. for a more detailed justification of the necessity of a missile defence system: Speech by President George W. Bush, National Defense University, Washington, 1 May 2001; White House transcript, <http://www.fas.org/nuke/control/abmt/news/010501bush.html>.

³¹ Jim Rutenberg, Putin Expands on His Missile Defence Plan, in: The New York Times of 3 July 2007, <http://www.nytimes.com/2007/07/03/us/03putin.html>.

³² Cf. for these concerns also the Chairman of the Senate Foreign Relations Committee, Joseph R. Biden, Jr., Remarks Prepared for Delivery for Hearing: "Strategic Assessment of U.S.-Russian Relations", 21 June 2007, <http://foreign.senate.gov/testimony/2007/BidenStatement070621.pdf>; as well as Senator Richard G. Lugar, Opening Statement for Strategic Assessment of U.S.-Russian Relations Hearing, 21 June 2007, <http://foreign.senate.gov/testimony/2007/LugarStatement070621.pdf>.

³³ Cf. Joint Statement by U.S. Secretary of State Condoleezza Rice and Minister for Foreign Affairs of the Russian Federation Sergey Lavrov, Washington D.C. 3 July 2007, <http://www.state.gov/r/pa/prs/ps/2007/87638.htm>.

2.1.3 Evaluation

It is only through the INF Treaty that an entire category of nuclear delivery systems has been eliminated to date. However, this treaty does not cover what is to be done with the nuclear warheads which are thus released from service. At the strategic level, the number of nuclear warheads is supposed to be reduced considerably through the START Treaties, yet it remains to be seen whether this process will ever get past the figure of 6,000 for each party which was agreed under the terms of START I, for the START II Treaty, which set much lower ceilings, was abrogated by Russia in 2002. While the SORT Treaty, concluded as the replacement for this agreement, calls for somewhat lower limits than did the START II Treaty, the fact that it expressly permits the stockpiling of decommissioned warheads means that there is considerable reason to doubt that it will lead to further reductions in the number of strategic warheads.

This means that strategic arms control and disarmament faces an uncertain future. Although Washington and Moscow have begun negotiations to determine the future of arms control policy following the end of START I in 2009 and SORT in 2012, there has still not been a clear commitment, particularly on the part of the USA, to the continuation of the process of strategic arms control and disarmament, nor have there been proposals for further reductions in the stocks of strategic warheads, even though there have been calls for this through political channels by other nuclear-weapon states.³⁴

The withdrawal from the ABM Treaty, undertaken to improve defensive capabilities vis-à-vis new and less predictable nuclear-weapon states, appears quite plausible at first glance, especially as this concept has since been expressly extended to include the allies of the USA. Yet this can only be the case if this defensive capability is limited to the neutralisation of the potential threat arising from new nuclear powers, and if the reliability of the resulting system is high. Each of these suppositions appears to be questionable for a number of reasons, and the move to increase armaments may actually be strengthened as a result. Firstly, these systems are not to be deployed against all nuclear-weapon states (e.g. against Pakistan), and in some cases they are also not to be deployed where there is already a danger posed by missiles (the south-eastern portion of NATO members' territory, which can already be reached by Iranian missiles, cannot be protected by US defence systems stationed in Poland). Secondly, as a result of the current deployment locations, this defensive system can also devalue the

³⁴ Cf. the corresponding demand expressed by British Foreign Minister Margaret Beckett, *supra*, Beckett Says Nuclear States Must Cut Stockpiles, in: The New York Times, 25 June 2007, <http://www.nytimes.com/reuters/world/international-nuclear-britain-conference.html>.

deterrent potential of the traditional nuclear powers, meaning that its effects are quite mixed unless these powers can be included in a cooperative manner, or unless the defensive capabilities of these systems are limited. Thirdly, strategic missile defensive capabilities could serve as an important instrument for safeguarding the current global balance of power, especially vis-à-vis China. As a result, Russia and China have been undertaking a variety of arms programmes to counter the efforts of the USA, thus threatening to intensify the build-up of nuclear arms. Russia has been concentrating its efforts on technology to circumvent the USA's missile defence systems, while China appears to be striving to achieve the status of a full nuclear power with a secure second-strike capability, and is increasing its stocks of offensive weapons accordingly. Fourthly, the effectiveness of current missile defence systems is still very limited. In light of these circumstances, the planned deployment of a missile defence system should be linked with strenuous efforts to achieve cooperative arms control and disarmament.

2.2 Unilateral security policy measures

2.2.1 Positive developments

Withdrawal of tactical nuclear weapons: In Autumn 1991, US President George Bush (Sr.) and the General Secretary of the Communist Party of the Soviet Union, Mikhail Gorbachev, declared in concert that they were undertaking the unilateral withdrawal of their tactical nuclear weapons to the territory of the USA and the USSR respectively. This measure was intended to accelerate the repatriation to the USSR of tactical nuclear weapons from Eastern and Central Europe as a result of the imminent collapse of the USSR. The USA reduced its stocks of tactical nuclear weapons in Europe to a few hundred bombs carried in aircraft, removed all nuclear weapons from surface warships and withdrew all nuclear weapons from South Korea. These moves were not subjected to verification.

Nuclear weapons reductions by France and the United Kingdom: Although France and the United Kingdom did not participate in the reductions of strategic nuclear armaments made by the USA and Russia, they did reduce their strategic nuclear potential in the 1990s to a considerable extent, and undertook even greater reductions in their tactical nuclear arsenals, reconstituting them as more of a minimum deterrent. France withdrew all its short-range Hades missiles from nuclear use by 1996, decommissioned the nuclear-capable Mirage IV bomber and dismantled all 18 land-based S3 missile silos.

The number of France's strategic submarines was also reduced from five to four.³⁵ In addition, France also abandoned its nuclear test site in the South Pacific; it ratified the Comprehensive Nuclear Test-Ban Treaty in 1998. By 1998, the United Kingdom had given up all of its tactical nuclear warheads, and it had reduced the number of strategic warheads to 196 from more than 300. Since this time it has possessed four strategic submarines armed with US Trident D5-SLBMs (Submarine-Launched Ballistic Missiles); the UK government recently voted to modernise these systems. As part of this modernisation, the number of warheads is to be further reduced by 20 percent, from the current total of nearly 200 down to 160.

Regional stabilisation talks in South Asia: In addition, under Secretary of State Colin Powell the USA was a strong proponent of establishing a dialogue between Pakistan and India. Since 2002/3 these countries have been conducting a process of military confidence building and bilateral peace negotiations concerning the disputed Kashmir region, something which has reduced the risk of a (nuclear) war between these states since the nuclear tests conducted by India and Pakistan in 1998.

2.2.2 Negative developments

Political effects of pursuing counter-proliferation through military means: The concept of counter-proliferation involves a search for means, including the use of military force where absolutely necessary, to prevent the creation of new nuclear-weapons states. This concept is based on a deep-seated scepticism as to whether negotiations can achieve a satisfactory solution to the problem of nuclear proliferation, and – even when this appears to be possible in principle – if it can do so within a reasonable period of time. Yet it must be asked whether such threats, especially as they may even include the use of nuclear weapons, do not instead promote the process of proliferation, rendering them politically counterproductive. It would also be practically impossible to guarantee complete disarmament due to the fact that those countries striving to obtain nuclear arms do their utmost, by concealing and stashing away their facilities, to hinder such forced disarmament options from the outset. In particular, however, it is necessary to consider the results such attacks might have on the non-combatant civilian population, as these would be difficult to contain. Continued development of military counter-proliferation within the framework of the USA's doctrine of strategic flexibility expounded in 1996 also calls into question the 'negative security guarantee' for non-

³⁵ Cf. for more detailed information: <http://www.fas.org/nuke/guide/france/nuke/index.html>.

nuclear-weapon states.³⁶ Neither the new National Security Strategy documents of the USA from 2002 and 2006, nor the National Strategy to Combat Weapons of Mass Destruction from December 2002, rule out pre-emptive strikes against terrorist targets worldwide or the use of nuclear weapons for this purpose.³⁷ Non nuclear-weapon states may thus feel that they have even more reason to obtain nuclear weapons in order that they can better defend their sovereignty (cf. 2.3.2).

New Russian military doctrine: Russia has also weakened global non-proliferation efforts as a result the new military doctrine it proclaimed in January 2000. While the first drafts of this declaration contained an acknowledgement of global nuclear disarmament, this was left out of the final version. In addition, Russia also revoked its earlier no-first-strike pledge as part of its version of a flexible response strategy. While the 'negative security guarantee' for non-nuclear-weapon states has been maintained, in contrast to the USA, it has been rendered conditional for countries maintaining military alliances with nuclear powers.³⁸

Further development of the technology for nuclear warheads: The US Government under President George W. Bush intends not only to retain its nuclear warheads (Stewardship Program), but also to develop new types of tactical nuclear weapons (mini-nukes, bunker-busters) and new strategic warheads (Reliable Replacement Warhead Program³⁹). Additional security measures to prevent unauthorised use are to be integrated into these warheads. However, to date the US Congress has blocked these plans for the construction of new nuclear weapons. Following the cessation of their underground testing, the United Kingdom and France launched extensive virtual testing programmes known in the UK as the "Warhead Science Program", (conducted in close cooperation with the US programme) and in France as the "Simulation" programme. One result of these moves is the retention of available scientific capacities in this field; another is the fact that new warhead designs can be tested and developed without

³⁶ Cf. also Harald Müller/Stephanie Sohnius, *Intervention und Kernwaffen, Zur neuen Nukleardoktrin der USA*, HSFK Report 1/2006, Frankfurt am Main 2006, 16.

³⁷ Cf. National Strategy to Combat Weapons of Mass Destruction, Washington, D.C. December 2002, <http://www.whitehouse.gov/news/releases/2002/12/WMDStrategy.pdf>, 2 and 3; as well as: The National Security Strategy of the United States of America, Washington, D.C. March 2006, <http://www.whitehouse.gov/nsc/nss/2006/nss2006.pdf>, 18.

³⁸ For the draft version, cf. supra: Draft Russian Military Doctrine, <http://www.fas.org/nuke/guide/russia/doctrine/991009-draft-doctrine.htm>. Cf. inter alia Items 2.12, 2.16. The final version from 10 January 2000 can be found under the National Security Concept of the Russian Federation, <http://www.fas.org/nuke/guide/russia/doctrine/index.html>.

³⁹ Cf. Office of the Deputy Assistant to the Secretary of Defense for Nuclear Matters, *Stockpile Transformation*, <http://www.acq.osd.mil/ncbdp/nm/stockpiletransformation.html>.

actual physical tests.⁴⁰ Cooperation between the US and the UK in this field poses the question of whether this is not actually an infringement of Article I of the NPT, under which the transfer of nuclear weapons technology is prohibited. Both the start and maintenance of such extensive programmes increase the risk that other nuclear-weapon states will also pursue this course, giving rise to a new arms race and thus further reducing the value of the Comprehensive Nuclear Test-Ban Treaty.

China's anti-satellite test: In January 2007, China shot down a satellite 800 km above the earth's surface in a test of its capabilities. This clearly signalled the readiness of the Chinese leadership to defend its activities in space with military force if need be, as well as its ability to use military means to deny other countries the use of space. As a new global power, Beijing is pursuing a long-term programme to explore other objects within the solar system, particularly the Moon. It has long been working with Russia to achieve a revision of existing treaties or even a new treaty governing the use of space and preventing a space arms race. The USA has been critical of these efforts, not least due to the fact that it fears that this would obligate it to subject portions of its planned strategic missile defence system to negotiation.

2.2.3 Evaluation

As a result of the imminent collapse of the Soviet Union, in the early 1990s there were a series of coordinated, unilateral measures taken with the objective of minimising to the greatest possible degree any risks which might be posed by the USSR's tactical nuclear weapons in the event of such collapse. The negotiation of a disarmament agreement would have taken far too long under these circumstances, which meant that the steps taken unilaterally by the USA and Russia to reduce the presence of tactical nuclear weapons, some of which were coordinated with each other, were very much to be welcomed. Even so, to this day they have still not led to an agreement on the dismantling of the tactical nuclear warheads themselves. This represents a significant omission in nuclear arms controls and disarmament.

The development of nuclear doctrine, particularly that of the USA as it has reacted to what it perceives as the increasing risk of proliferation, may instead have led to an increased interest in nuclear weaponry by numerous countries. The devaluation of the

⁴⁰ Cf. Giorgio Franceschini/Annette Schaper, Nuclear Weapons Research and Modernization Without Nuclear Testing, The CTBT in Danger? PRIF-Report No. 77, Peace Research Institute Frankfurt am Main 2007, 42f.

'negative security guarantee' for non-nuclear-weapon states, as well as plans to utilise nuclear weapons pre-emptively if need be, even against non-nuclear-weapon states, gives rise to fears on the part of 'problem' states in particular that they may not be able to safeguard their sovereignty. The invasion of Iraq by the USA and its allies in 2003 created a difficult and unpredictable environment in North Korea and Iran in particular. However, the USA's original strategy, which was based on military force and deterrence, failed in Iraq. Both North Korea and Iran are now seeking to utilise the current weakness of the USA in pursuit of their own nuclearisation. The nuclearisation of Iran in particular, something which is in the realm of possibility within a few years, could lead to Saudi Arabia, Egypt, Syria and perhaps even other states in the Middle East region attempting to follow this step soon thereafter.

The decision by the three traditional nuclear powers, the USA, France and the United Kingdom, to continue their development of nuclear warheads with comprehensive research and simulation programmes threatens to permanently undermine the Comprehensive Nuclear Test-Ban Treaty, which has been largely complied with on an informal basis since 1998. In the USA, support for these moves is most often couched in terms of new security measures which might then also facilitate a reduction in the number of warheads.⁴¹ Yet while the modernisation programmes have already taken very concrete forms, there are still no indications as to the scope of their actual contribution to a reduction in the stockpiles of nuclear weapons, not to mention the fact that these developments also have the potential to spur other nuclear-weapon states such as Russia, China, India and Israel to undertake similar programmes. Overall, programmes such as these increase the pressure to eventually resume underground nuclear weapons testing due to the fact that the new and much safer warheads may no longer function reliably. This would also result in an overall worsening of the outlook for cut-off negotiations, and thus make both the global elimination of nuclear weapons and the overcoming of nuclear deterrence even more unlikely.

⁴¹ For example, these were the arguments given by US Deputy Energy Secretary Clay Sell when addressing an international conference hosted by the Carnegie Endowment in June 2007, cf. Jacqueline S. Porth, Nuclear Weapons Nonproliferation Regime Challenges Experts, USINFO State Gov, 29 June 2007, <http://usinfo.state.gov/utills/printpage.html>.

2.3 Non-proliferation policies

2.3.1 Positive developments

An increase in nuclear weapon-free zones (NWFZ) and in the number of their member states: Nuclear weapon-free zones can help to strengthen a policy of non-proliferation of nuclear weapons in numerous ways. The greater the number of countries and regions that take part in such zones, the greater their political effect. In general, it is easier to determine the non-nuclear status of a country than it is to define the type and scope of nuclear status. Nuclear weapon-free zones are most effective at restricting the freedom of action of nuclear powers when strict efforts are undertaken to ensure that no nuclear weapons are transported either through or into these zones. So long as nuclear powers reserve the right to threaten or attack the members of such zones with nuclear weapons, their value for security policy and for global non-proliferation is limited. On the other hand, the more respect shown by nuclear powers for such nuclear weapon-free states and zones, the greater their possible positive effect in terms of restricting proliferation. If the number of states participating in such zones increases, this also indirectly supports the requirements of Article 6 of the NPT for global nuclear disarmament. Normally there is no verification of the absence of nuclear weapons, as to date this has been achieved solely by the constraints exerted by the national and international public, yet membership in the IAEA and recognition of its Supplementary Protocol, as well as the legally binding accession to the Comprehensive Nuclear Test-Ban Treaty play a positive role due to the fact that at least some aspects of nuclear-weapon-free status can thus be subjected to continuous observation and examination.

In 1959, Antarctica was declared to be a nuclear weapon-free zone in the Antarctica Treaty, and in 1967, 34 states of Latin America and the Caribbean were declared to be a nuclear weapon-free zone in the Treaty of Tlatelolco.⁴² The number of these zones and their member states has increased even further since 1983. In 1983, for example, thirteen countries (Australia, the Cook Islands, Fiji, Kiribati, Nauru, New Zealand, Niue, Papua New Guinea, the Solomon Islands, Tonga, Tuvalu, Vanuatu and Western Samoa) declared the South Pacific to be a nuclear weapon-free zone in the Treaty of Rarotonga; this treaty took effect in August 1985. The Marshall Islands and Micronesia also signed onto this agreement at a later date. Unlike the Treaty of Tlatelolco, the Third Protocol to this Treaty expressly demands that the nuclear powers also refrain from any nuclear

⁴² Cf. for more details on the Antarctica Treaty: <http://www.opanal.org/NWFZ/Antartico/antartica.htm>; for more details on the Treaty of Tlatelolco: <http://www.opanal.org/opanal/Tlatelolco/P-Tlatelolco-i.htm>.

testing within the area covered by this Treaty.⁴³ In 1992 both Korean states agreed that the Korean peninsula was to be free of nuclear weapons in order to secure the unilateral withdrawal of all US nuclear weapons through a bilateral agreement.⁴⁴ However, this bilateral agreement did not achieve international recognition. In 1992, following the withdrawal of all Russian troops, Mongolia declared itself to be a nuclear weapon-free zone, and in 2000 it submitted the corresponding resolution of its parliament to the General Assembly of the UN. This national zone took effect in 2000.⁴⁵ In 1995 the ten ASEAN states (Brunei, Indonesia, Malaysia, the Philippines, Singapore, Thailand, Vietnam, Laos, Cambodia and Myanmar) declared their territories to be a nuclear weapon-free zone in the Treaty of Bangkok. This treaty took effect in 1997.⁴⁶ The Treaty of Pelindaba, which has been open for the signature of all 54 African nations since 1995, aims to make Africa a nuclear weapon-free zone. By 2007, 50 countries had signed this treaty, and 20 had ratified it. The treaty will come into effect once it has been ratified by at least 28 countries.⁴⁷

In September 2006, five nations of Central Asia - Kazakhstan, Uzbekistan, Kyrgyzstan, Tajikistan and Turkmenistan – also concluded an agreement to create a nuclear weapon-free zone.⁴⁸ This agreement represents progress in two respects: firstly, Kazakhstan, which has at times been a nuclear-armed state since the dissolution of the USSR, is a member of this zone, and secondly, following the nuclearisation of Pakistan in 1998, it reduces the probability that additional nuclear states will come into being in its direct vicinity. Both the status and value of this zone will remain questionable, however, as long as the agreement of 1992 whereby Russia is permitted to return its

⁴³ Cf. South Pacific Nuclear-Free Zone, Treaty of Rarotonga, <http://www.opanal.org/NWFZ/Rarotonga/rarotonga.htm>.

⁴⁴ Cf. Joint Declaration on the Denuclearization of the Korean Peninsula, 20 January 1992, <http://www.unikorea.go.kr/english/EUL/EUL0101R.jsp>. In this declaration, both Korean states renounced the possession and utilisation of nuclear weapons, stated their intention to restrict their use of nuclear energy to peaceful pursuits, and declared that they would not seek to acquire reprocessing facilities or uranium enrichment facilities.

⁴⁵ Cf. Mongolia's Nuclear-Weapon-Free Status, <http://www.opanal.org/NWFZ/Mongolia/mong.htm>. Cf. supra The Case for the Single-State Nuclear-Weapon-Free Zone, <http://www.un.int/mongolia/ssnwfz.htm>.

⁴⁶ Southeast Asia Nuclear-Weapon-Free Zone, Treaty of Bangkok, <http://www.opanal.org/NWFZ/Bangkok/Bangkok.htm>.

⁴⁷ Cf. for more detailed information on the African Nuclear-Weapon-Free Zone, Treaty of Pelindaba, <http://www.opanal.org/NWFZ/Pelindaba/pelindaba.htm>. Most of the Arab states of North Africa have been hesitating to ratify this treaty due to the unresolved conflict in the Middle East, the nuclear ambitions of Iran and the nuclear weapons possessed by Israel. In addition, there is growing criticism from other neutral and non-aligned states of the lack of any readiness to disarm on the part of the nuclear-weapon states.

⁴⁸ Cf. supra, Central Asia's nuclear-free zone treaty marks 'another step in years of effort': Annan, in: UN News Service, 8 September 2006, <http://www.un.org/apps/news/story.asp?newsid=19767&cr=nuclear&cr1=>.

nuclear weapons to this area is not expressly revoked by the member states.⁴⁹ In addition to these developments, other nuclear weapon-free zones have been under discussion for the Middle East, South Asia and Central Europe for quite some time now.

Dealing peacefully with the nuclear legacy of the Soviet Union: With the end of the East-West conflict, the Soviet Union dissolved into 15 separate states in 1991/92. Of these, Russia and three other countries (Kazakhstan, Belarus and Ukraine) became nuclear-weapon states practically overnight. With the Lisbon Protocol of 1992, the Nunn-Lugar Cooperative Threat Reduction Program of 1991/92 and the START I Treaty, support was provided for the peaceful resolution of the Soviet Union's nuclear legacy, with the majority of this support coming from the USA. Kazakhstan and Belarus thus transferred their Soviet nuclear arsenals to Russia, which viewed itself as the sole legitimate successor to the USSR in this regard. Kazakhstan achieved non-nuclear status in 1995, and Belarus attained this status in 1996. Ukraine, on the other hand, decommissioned its Soviet nuclear weapons and delivery systems itself due to the fact that it did not share Russia's legal opinion regarding its status as the sole legitimate successor of the Soviet Union; it attained non-nuclear status in 1996. The Nunn-Lugar programme, for which 2.3 billion US dollars has been expended to date, has proved to be an important instrument with which to support efforts to secure nuclear weapons and the associated fissile materials in all four nuclear successor states, prevent the uncontrolled "brain drain" of nuclear experts and support the elimination of nuclear armaments, including delivery systems and launch facilities (missiles, bombers, silos).⁵⁰ Current plans call for the continuance of this programme until 2013.⁵¹ It has been supported and extended through programmes undertaken by the EU (Technical Aid to the Commonwealth of Independent States, TACIS, 1991)⁵² and the G8 states (Global Partnership Against the Spread of Weapons and Materials of Mass Destruction, 2002)⁵³.

⁴⁹ Cf. Ilan Greenberg, Central Asia Pact Frees the Region of Nuclear Arms, in: The New York Times, 10 September 2006. As a result, the United States, United Kingdom and France are withholding recognition of this zone for the time being, while Russia and China have taken a positive view of this zone and participated in the signing ceremony.

⁵⁰ Within the framework of this programme, more than 2,000 intercontinental missiles have been dismantled, over 1,000 missile launchers have been eliminated, and more than 7,000 nuclear warheads have been deactivated to date. Cf. Senator Richard G. Lugar, Opening Statement for Strategic Assessment of U.S.-Russian Relations Hearing, 21 June 2007, <http://foreign.senate.gov/testimony/2007/LugarStatement070621.pdf>.

⁵¹ Cf. Daniel Fried, Assistant Secretary for European and Eurasian Affairs, Russia: In Transition or Intransigent?, Testimony Before the Helsinki Commission, Washington, DC on 24 May 2007, <http://www.state.gov/p/eur/rls/rm/85479.htm>.

⁵² Cf. The EU's relations with Eastern Europe & Central Asia, http://ec.europa.eu/external_relations/ceeca/tacis.

⁵³ Cf. Statement by the G8 Leaders, The G8 Global Partnership Against the Spread of Weapons and Materials of Mass Destruction, Kananaskis, 27 June 2002, <http://www.g8.gc.ca/2002Kananaskis/globpart-en.asp>.

The G8 states have pledged to raise a total of 20 billion US dollars for this purpose by 2012.⁵⁴

Resolution of the first North Korean nuclear crisis: Following a serious crisis in 1993, the USA was able through bilateral negotiations to obtain the agreement of the North Korean government to the ambitious Geneva framework agreement of 1994⁵⁵, under which North Korea agreed to cease work on its plutonium programme in return for a promise to replace its two graphite-moderated reactors, which could be used for the production of plutonium, with two light-water reactors. The plutonium programme is to have been verifiably halted before the delivery of the core elements for the first reactor. Until this time, the US Government is to provide North Korea with 500,000 tonnes of heavy oil, to dismantle its economic sanctions and to normalise its relationship with the government in Pyongyang. 70 percent of the financing for these two light-water reactors is to be provided by South Korea, and 20 percent by Japan. In order to facilitate the multilateral implementation of this accord, the Korean Peninsula Energy Development Organization (KEDO) was established in 1995; the EU joined this organisation in 1997. North Korea was required to decommission its plutonium programme and subject its entire civilian nuclear programme to the rules of the NPT and the IAEA before the two new reactors could be brought online; to this point North Korea had held a special status within the NPT for which there was no legal basis.

IAEA – Additional Protocol: Following the discovery in 1991 of the fact that Iraq had possessed a secret nuclear weapons programme which had made a great deal of progress, the inspection regime of the IAEA was strengthened considerably with the Additional Protocol of 1997 in order to better deter any such attempts to circumvent this in future.⁵⁶ Since then it has also been possible to carry out inspections in cases of justified suspicion. The Additional Protocol has been ratified by 81 nations and the EU to date, including China, France and the United Kingdom.⁵⁷ 118 states have signed this Additional Protocol, including the USA, Russia and, as a possible future nuclear power,

⁵⁴ Mike Nartker, The G8 Global Partnership Against the Spread of Weapons and Materials of Mass Destruction; United States Supports Expansion of G-8 Nonproliferation Effort, Officials Say, in: Global Security Newswire from 27 April 2004, <http://www.ransac.org/Publications/Articles%20and%20Commentary/528200410601PM.html>.

⁵⁵ Cf. Agreed Framework between the United States of America and the Democratic People's Republic of Korea, Geneva, 21 October 1994, in: <http://www.kedo.org/pdfs/AgreedFramework.pdf>.

⁵⁶ Cf. IAEA, INFCIRC/540, Model Protocol additional to the Agreement(s) between State(s) and the International Atomic Energy Agency for the Applications of Safeguards, <http://www.iaea.org/Publications/Documents/Infcircs/1998/infcirc540corrected.pdf>.

⁵⁷ Cf. IAEA, Status of Additional Protocols, 16 May 2007, http://www.iaea.org/OurWork/SV/Safeguards/sg_protocol.html.

Iran (2003). Israel, Pakistan, India and North Korea are still among those who have yet to sign.

Unlimited extension of the Nuclear Non-Proliferation Treaty: In 1995, the parties to the Nuclear Non-Proliferation Treaty agreed during the Review Conference then in session that this treaty would no longer be renewed from Review Conference to Review Conference – i.e. at five-year intervals – but that they would instead extend it indefinitely. For the non-nuclear-weapons states, this step was based on the premise that the process of nuclear disarmament would be continued by the nuclear powers, and that they would also maintain a responsible stance vis-à-vis their commitment to disarm under Article 6.

Wassenaar Arrangement: Since 1995, the Wassenaar Arrangement has taken the place of the COCOM Regime; this was an agreement maintained by the Western states during the Cold War which came to an end in 1994.⁵⁸ Russia is a member of this new Arrangement, which is intended to strengthen regional and international stability and security. It supplements existing control regimes aimed at preventing the export of dual-use goods which could be utilised for the manufacture of weapons of mass destruction. This Arrangement calls in particular for the exchange of information solely on the basis of national law concerning exports which have already been denied. The 40 member states have drawn up control lists of goods and countries for the export of critical goods; these lists are updated in accordance with ongoing developments on a regular basis.

Six-party talks for resolving the second North Korean nuclear crisis: After North Korea withdrew from the NPT in contravention of the treaty's terms in 2003, three-party talks with North Korea were launched in Beijing in April 2003 on the initiative of the USA and China. These were expanded to six-party talks in August 2003 with the addition of Russia, Japan and South Korea. On 19 September 2005, an initial outline agreement was concluded; on 13 February 2007 a partial agreement was reached on a shutdown; and on 30 September a second agreement was concluded covering the disablement of the North Korean plutonium programme.⁵⁹ North Korea hereby indicated that it might be willing to give up its obsolete plutonium programme, which is in conflict with the non-proliferation regime, under certain circumstances. Implementation of the first partial agreement was delayed due to the fact that the payment of 25 million US dollars that had been frozen, payment of which had been agreed bilaterally between the USA

⁵⁸ Cf. Wassenaar Arrangements, <http://www.wassenaar.org/introduction/index.html>.

⁵⁹ Cf. Joint Statement of the Fourth Round of the Six-Party Talks Beijing, 19 September 2005, <http://www.state.gov/r/pa/prs/ps/2005/53490.htm>, as well as Initial Actions for the Implementation of the Joint Statement, <http://www.state.gov/r/pa/prs/ps/2007/february/80479.htm>.

and the Democratic People's Republic of North Korea (DPRK), did not become possible until June 2007. It is currently unclear whether these negotiations will be successful, as no solution has yet been found for the elimination of the weapons-grade plutonium, the six to eight warheads already in existence or the disputed uranium enrichment programme.

Proliferation Security Initiative (PSI): This initiative, which was proclaimed by US President Bush in Krakow in late May 2003, aims to prevent the illegal transfer of weapons and of goods related to the production of weapons of mass destruction on the basis of international law and the national legislation of participating states. This can entail the interception and inspection of shipments on the high seas, in the air and on land as required. To date more than 60 countries have declared their readiness to participate in this initiative, which also involves numerous military exercises in areas of particular danger each year. In 2003 the participating nations agreed on a Statement of Interdiction Principles governing the interdiction of illegal transfers.⁶⁰

U.S.-India Civil Nuclear Cooperation Initiative: In March 2006 the USA and India reached an agreement on civil nuclear cooperation, even though India is not a member of the NPT. This agreement is intended to provide the New Delhi government with access to uranium from states belonging to the Nuclear Suppliers Group (Australian uranium deposits in particular) in order to promote an expansion of the civil nuclear energy programme in India, thus helping to reduce the impact of India's rapid economic growth on the environment and on the climate. In return, India is to subject its civil nuclear energy programme to international controls in future. The USA is hoping with this move to bring India into the NPT and the IAEA over the long term. The agreement is particularly notable for the fact that the USA is attempting to integrate a country with nuclear weapons into the NPT regime not through sanctions, but through positive incentives.

Global Initiative To Combat Nuclear Terrorism: This initiative, which was called into being by US President George W. Bush and Russian President Vladimir Putin in July 2006,⁶¹ is intended to deny terrorists access to expertise concerning nuclear technologies or associated materials and facilities on the basis of the United Nations Security Council Resolution 1540 (2004) using voluntary, cooperative, passive and active protective measures. This initiative is open to the participation of all interested

⁶⁰ Cf. Proliferation Security Initiative: Statement of Interdiction Principles, <http://www.state.gov/t/isn/rls/fs/23764.htm>.

⁶¹ Cf. Announcing the Global Initiative To Combat Nuclear Terrorism, <http://www.state.gov/p/eur/rls/or/69021.htm>.

nations. The IAEA and EU are participating as observers. To date more than 50 states have signed onto this initiative, including the USA, Russia, China, France, the United Kingdom, Israel and Pakistan. Only India and North Korea have yet to join. In autumn 2006, 13 participating countries agreed on a joint Statement of Principles, as well as on additional agreements to facilitate cooperation.⁶²

Bush-Putin Declaration on Nuclear Energy and Nonproliferation: In this declaration from 2007, the USA and Russia offer developing countries in particular sustained support for their civil nuclear energy programmes and for their safe use on the basis of existing NPT and IAEA rules.⁶³ However, this calls for technologies which are particularly suitable for weapons use, such as uranium enrichment, to remain under the sole control of these two states. In return, such countries are to be offered the prospect of a secure supply at stable market prices.

Cessation of programmes for the military utilisation of nuclear energy: With the democratisation of Brazil in 1985, all of the military nuclear programs in this country were terminated. Argentina is believed to have ceased work on its programme of similar nature by no later than 1990. In addition, in 1990 Brazil and Argentina set up a bilateral authority dedicated to monitoring their civil nuclear programmes. Brazil joined the Latin American nuclear weapon-free zone in 1968, and Argentina joined it in 1994. Buenos Aires subjected itself to the NPT in 1995, and the Comprehensive Nuclear Test-Ban Treaty in 1998, while Brasilia signed and ratified both the Non-Proliferation Treaty and the Comprehensive Nuclear Test-Ban Treaty in 1998. In 1991, shortly before the end of the Apartheid regime, South Africa destroyed six nuclear warheads, and it acceded to the NPT in 1992. All of its military nuclear facilities had been fully dismantled under the supervision of the IAEA by 1994. South Africa officially joined Africa's nuclear weapon-free zone in 1998 (Treaty of Pelindaba), and it has also been legally subjected to the Comprehensive Nuclear Test-Ban Treaty since 1999. In 1991 it became known that Algeria had been secretly pursuing a nuclear reactor project with China's support. While Algeria denied these allegations, it submitted its activities to monitoring by the IAEA as a result of pressure from the international community, and in 1995 it signed on to the Non-Proliferation Treaty. However, it has yet to sign or ratify the Additional Protocol of the IAEA, though it did ratify accession to Africa's nuclear weapon-free zone in 1998, and the accession to the Comprehensive Nuclear Test-Ban Treaty in 2003. At the end of the same year, Libya announced the cessation of its secret nuclear and

⁶² Cf. Statement of Principles for the Global Initiative To Combat Nuclear Terrorism of 31 October 2006, <http://www.state.gov/t/isn/rls/other/76358.htm>.

⁶³ Cf. Bush, Putin Declaration on Nuclear Energy and Nonproliferation, Washington D.C., 3 July 2007, <http://www.state.gov/p/eur/rls/prsr/87641.htm>.

chemical weapons programmes. In 2004 it signed onto the Comprehensive Nuclear Test-Ban Treaty and the International Atomic Energy Agency, and agreed to accept inspections on the basis of the Additional Protocol of the IAEA.⁶⁴ At the same time, it returned approx. 3 kg of fissile materials which had originated in Russia, as well as centrifuges which were intended for uranium enrichment that had been illegally procured from Pakistan via the international nuclear smuggling network conducted by Abdul Qader Khan (cf. 2.3.2). These moves followed years of negotiations with the United Kingdom and the USA. Libya has been an official member of Africa's nuclear weapon-free zone since 2005.

Monitoring and restricting the export of long-distance missiles and long-distance missile technology: These restrictions are intended to support non-proliferation of weapons of mass destruction, and thus to promote international security, and include attempts to restrict the export of missiles and missile technology for missiles with a range of greater than 300 km. Reference must be made here to the Missile Technology Control Regime (MTCR)⁶⁵ of 1987, which is based on an informal voluntary agreement between Canada, France, Germany, Italy, Japan, the United Kingdom and the USA. The MTCR regime now counts 34 countries, including Russia. This agreement was joined in 2002 by the politically binding Hague Code of Conduct (HCOG) against the proliferation of ballistic missiles and ballistic missile technology, which is intended to supplement the MTCR. 111 states had signed onto this Code by 2007.⁶⁶ However, it does not prescribe any verification measures.

2.3.2 Negative developments

A reduction in the momentum towards the creation of nuclear weapon-free zones (NWFZ) and the security-policy relativisation of such processes: Since the second half of the 1990s, the international momentum towards new NWFZs has fallen considerably. While all previous NWFZs came into force within only a few years of their texts being submitted for approval, the Treaty of Pelindaba for Africa has been awaiting ratification for twelve years now, and it must still be ratified by eight more countries before this treaty can come into force. The nuclear weapon-free zone encompassing the Korean

⁶⁴ Cf. Harald Müller, *Libyens Selbstentwaffnung, Ein Modellfall?*, HSKF Report, 6/2006, Frankfurt am Main, as well as: Security Council welcomes Libya's decision to abandon weapons of mass destruction programmes, Press Release SC 8069, 22 April 2004, <http://www.un.org/News/Press/docs/2004/sc8069.doc.htm>.

⁶⁵ Cf. for more detailed information: <http://www.mtcr.info/english/index.html>.

⁶⁶ Cf. International Code of Conduct against Ballistic Missile Proliferation, <http://www.armscontrol.org/documents/icoc.asp>.

peninsula, which is not recognised internationally, was unilaterally terminated by North Korea in 2005 when, without prior consultation with South Korea, it declared itself to be a nuclear power in February 2005.⁶⁷ The NWFZ of Central Asia, the most recent to take effect legally, is also a matter of international dispute. It has not yet been recognised by the USA, the United Kingdom or France due to the fact that the terms of bilateral agreements would allow Russia to station its nuclear weapons there under certain circumstances. While the five traditional nuclear powers recognise such zones to the degree that they are legally applicable, they do so with various reservations. In this regard, the reservations of China, which like Russia has expressly renounced any first use of nuclear weapons, are least serious, while the USA, France and the United Kingdom do not want to recognise any restrictions on the free utilisation of all seas and international straits even for ships armed with nuclear weapons, and France reserves the right to defend its territory in Latin America with nuclear weapons if need be. The USA's efforts to maintain global military superiority and the lessening interest of nuclear-weapon states in nuclear disarmament have increased the reservations of many states towards new nuclear weapon-free zones. The readiness of Washington, as well as of NATO (e.g. Kosovo), to become militarily active in extremely controversial security situations even without a UN resolution, along with the more offensive orientation of US military forces in the fight against terrorism (something which has also been included in Russian military doctrine since 2003) and a US nuclear doctrine which does not preclude the use of nuclear weapons against non-nuclear states, all have combined to increase these reservations. It is also unclear how the new nuclear powers (Israel, India, Pakistan and North Korea, and perhaps Iran as well) will act with regard to nuclear weapon-free zones. The growing military power of these states is resulting in greater insecurity and uncertainty for those non-nuclear-weapon states which have joined together to form nuclear weapon-free zones. It is also currently unclear whether the number of nuclear-weapon states might not increase even further.

Secret Iraqi nuclear weapons programme 1991: In spite of its membership in the Non-Proliferation Treaty (NPT), under Saddam Hussein Iraq had been pursuing a wide-ranging nuclear weapons programme. This was intended primarily to underscore Iraq's claims to hegemony in the region. Israel's bombing of Iraq's Osirak nuclear reactor shortly before it was to come online in 1981 was unable to stop this programme.

North Korea's nuclear weapons ambitions 1993: In spite of its being a signatory to the NPT, North Korea, one of the poorest countries in the world, also decided to pursue the

⁶⁷ Cf. DPRK FM on Its Stand to Suspend Its Participation in Six-party Talks for Indefinite Period, in KCNA from 10 February 2005, <http://www.kcna.co.jp/item/2005/200502/news02/11.htm#1>.

military nuclear option in 1992/93 in order to compensate for the massive weakening of its position which was entailed by the end to the East-West conflict. The country withdrew from the NPT in 1993, yet it suspended its withdrawal on the 89th day (one day before it would have taken effect legally) as a result of the progress being made in the negotiations on the Geneva framework agreement with the USA (cf. 2.3.1).

Pakistan becomes a nuclear power in 1998: Following a nuclear test by India in 1974 which was supposedly for civil purposes, Pakistan tested its first nuclear bomb in 1998. These tests were quickly followed by additional nuclear tests by India. The nuclearisation of Pakistan was due in large part to a long-lasting and unresolved security and territorial conflict (Kashmir) with India and to the experience of four wars between these two states.⁶⁸

Failure of missile control talks between the USA and North Korea in 2000: From 1999 to the end of 2000, the USA led talks aimed at prohibiting the production and export of long-range North Korean missiles (from 300 to 500 km). An agreement had nearly been reached by the end of 2000, yet North Korea lost interest in this agreement as the polls for Democratic US Presidential Candidate Al Gore continued to grow worse. The outgoing US government under President Clinton did not attempt to apply the necessary pressure to bring these negotiations to a successful conclusion, and newly elected US President George W. Bush displayed no interest in concluding such an agreement due to his critical stance towards the Geneva framework agreement of 1994.

Terrorist attack of 11 September 2001: On 11 September 2001, a coordinated terrorist strike against political and commercial targets in the USA was made using civil aircraft. This served to immediately highlight the risks to modern societies which would arise were terrorists to gain access to weapons of mass destruction.

Increasing tensions between the USA and Iraq, Iran and North Korea: In early 2002, US President Bush used the designation "Axis of Evil" to refer to the authoritarian regimes in Iraq, Iran and North Korea, and the risks they posed with regard to the promotion of international terrorism, perhaps even including weapons of mass destruction. North Korea viewed this as an attack on the legitimacy of its government, and saw this as an infringement of the Geneva framework agreement of 1994. In Iran, anti-Western forces benefited from the rhetoric of the US President, which was also the subject of frequent criticism in the West.

⁶⁸ Cf. T.V. Paul, *Why has the India-Pakistan Rivalry Been so Enduring? Power Asymmetry and an Intractable Conflict*, in: *Security Studies* 15/4, October-December 2006, 600-630.

Nuclear activities of Iran in contravention of its treaty obligations: In August 2002, previously unknown Iranian nuclear activities were revealed by Iranian opposition figures. These activities represented a clear breach of Teheran's obligations resulting from its membership in the NPT regime. It is believed that these activities go back as far as 18 years ago. While Iran signed the IAEA Additional Protocol in 2003 under international pressure, it has not yet ratified it. In addition, following negotiations with the EU troika (Germany, France, United Kingdom), Iran also ceased work on its uranium enrichment programme for a brief period of time, yet it resumed these activities once again in 2004. At the very least, Iran appears to be trying to keep open its option to quickly obtain nuclear weaponry, and as a result of its progress to date with nuclear technology, it might soon obtain the status of a new nuclear power.⁶⁹

North Korea possesses nuclear weapons: In January 2003, North Korea withdrew from the NPT in contravention of the treaty.⁷⁰ In October 2006 the country tested – with at least partial success – its first nuclear device; this followed its declarations in 2003 and 2005 that it was a nuclear power. In July 2006 Pyongyang had also conducted unannounced tests of multiple mid-range missiles and an intercontinental missile. The test of the intercontinental missile failed, however. As a result, the UN Security Council prohibited further long-range missile tests with Resolution 1695, and with Resolution 1718 – acting under Chapter VII of the United Nations Charter (Article 41) – it prohibited any further nuclear tests by North Korea, demanding that the country resume its participation in the six-party talks. At present, North Korea's status as a nuclear power is of greater political significance than it is of military importance, due to the fact that it has but a few nuclear warheads, and is unable to produce enough plutonium each year to create more than one warhead. And, in spite of its possession of short- and medium-range missiles, its nuclear warheads are most likely still too large and heavy to be used with such delivery systems. The North Korean leadership has been pursuing an ambiguous strategy to date: on the one hand, North Korea has been seeking recognition of its status as a nuclear power, yet on the other hand, it has declared its readiness for full nuclear disarmament if its demands are met.

War against Iraq by the USA in 2003: In March 2003, a "coalition of the willing" under US leadership began a war against Iraq without the authorisation of the UN Security

⁶⁹ Cf. William E. Odom, *The Problem: Nuclear Proliferation, The Nuclear Option*, in: *Foreign Policy*, May/June 2007, 51-52.

⁷⁰ Pursuant to Article 10 of the NPT, notice of withdrawal must be given to all member states in writing. However, North Korea did so only to the General Secretary of the UN. In addition, North Korea withdrew at only one day's notice, instead of complying with the mandated 90-day period. It attempted to justify this by referring to the suspension of its withdrawal in 1993, which took place on the 89th day after it had been submitted.

Council. The intention was to ensure that Saddam Hussein's regime would never be able to obtain or possess nuclear weapons or other weapons of mass destruction. A UN verification mission (UNMOVIC)⁷¹ that had been active in Iraq until shortly before the start of the war was unable to find any evidence for the existence of such weapons potential, however. The reasons given for this war at the start corresponded to the National Security Strategy (NSS) of the USA which was announced in September 2002, according to which the option of pre-emptive military strikes was to be kept open in order protect the USA against the threat of nuclear weapons or other weapons of mass destruction. Yet this NSS defined the grounds for pre-emptive action so broadly that it amounted to a – conditional – affirmation of preventive warfare which is illegal under international law. Contrary to the statements made by US Secretary of State Colin Powell to the UN Security Council in February 2003, following the removal of the Iraqi regime no evidence of the manufacture of weapons of mass destruction or of their existence was found, nor was anything found to substantiate claims that there had been a relationship between the regime of Saddam Hussein and the terrorist organisation Al Qaeda.⁷²

Discovery of the network run by Khan, a Pakistan nuclear scientist, in 2003: Following Libya's voluntary elimination of its weapons of mass destruction programmes, it became known that the country had received its uranium enrichment centrifuges and other materials from Pakistan. These deliveries supposedly took place through a secret private network run by a Pakistan nuclear scientist, Abdul Qader Khan, of which the Pakistani government claimed to have had no knowledge. This claim is hardly credible, however. Further investigations conducted with the support of the Pakistan government revealed that North Korea and Iran had also in all likelihood received similar shipments through this network, and that such offers were also made to the governments of other states (e.g. Syria). Even so, Pakistan has so far only informed other governments verbally of its findings, and it has not provided any documentation. This means that it is still an open question as to whether all of the important information on this network has actually been made available. Once its existence was revealed, the network was dismantled in Asia, Europe, the Middle East and Africa.⁷³ The existence of a network such as this one, combined with the growing danger that terrorists are attempting to obtain access to nuclear weapons, represents a considerable additional security risk, for this offers a means through which terrorists can come into possession of nuclear technology and the

⁷¹ Cf. for more detailed information on the United Nations Monitoring, Verification and Inspection Commission UNMOVIC: Basic facts, <http://www.unmovic.org>.

⁷² Cf. Bob Woodward, *State of Denial, Bush at War, Part III*, Simon & Schuster New York 2006, 227ff.

⁷³ Cf. Sebastian Harnisch, *Das Proliferationsnetzwerk um A. Q. Khan*, in: *Aus Politik und Zeitgeschichte* 48/2005, 24-31.

necessary materials and facilities, sufficient in particular for the production of a "dirty" radioactive bomb.

Failure of the NPT Review Conference in 2005:⁷⁴ Global nuclear non-proliferation is based on a compromise: that non-nuclear-weapon states shall only renounce nuclear weapons and allow their compliance with this commitment to be monitored by the IAEA so long as they are safe from nuclear threats or attacks by nuclear-weapon states, and these nuclear-weapon states further reduce their nuclear arsenals in compliance with Article 6 of the NPT. With their indefinite extension of the Nuclear Non-Proliferation Treaty in 1995, non-nuclear-weapons states provided the nuclear-weapons states with a credit of trust that these would continue to feel obligated by their commitments pursuant to Article 6. Yet the USA (and France) in particular refused to fulfil the commitments they had made at the previous Review Conference in 2000 (13 steps towards disarmament). As a result of this, the non-aligned states were unwilling to make any further concessions regarding non-proliferation, and those countries which were willing to compromise were unable to mediate successfully between these two positions. This calls into question the degree to which nuclear-weapon states have justified the credit of trust which they were granted for compliance with the treaty. Non-compliance with the obligations that have already been undertaken may result in a further weakening of the standards of the NPT and thus promote nuclear proliferation. This is even more likely when powerful actors in the international system believe that they can safeguard their security through withdrawing from negotiated global arms control agreements whenever they deem necessary. In up-and-coming nuclear powers such as China and India in particular, this trend threatens to support the wrong powers and further stoke the drive to increase arms, which could contribute to increasing international instability.

Ambivalent effects of the U.S.-India Civil Nuclear Cooperation Initiative: The agreement reached in March 2006 could also have as its result the acceleration of the arms race in Asia, for the opening of the global uranium market to India's civil nuclear programme also serves to reduce the strain on the country's military nuclear weapons programme. India only has limited uranium deposits itself, and now that these no longer must be reserved for its civil nuclear energy programme, they can be devoted in full to its efforts to provide itself with a nuclear arsenal vis-à-vis Pakistan and China. The US Congress therefore placed additional conditions on the government for the ratification of this agreement with the Hyde Act in December 2006. These are intended to make it

⁷⁴ Cf. Harald Müller, Vertrag im Zerfall? Die gescheiterte Überprüfungs-konferenz des Nichtweiterverbreitungsvertrags und ihre Folgen. HSKF Report 4/2005, Frankfurt am Main.

more difficult for India to misuse this agreement for its own nuclear arms programme, and include a revocation of this cooperation in the event that India conducts a nuclear test or establishes additional uranium enrichment facilities.

Security policy consequences of the expansion of civil nuclear energy use: Climate change and the finite nature of fossil energy resources pose a whole range of additional security problems over the medium and long term, something which will be even truer if this leads to an increase in the global importance of civil nuclear energy use. This is due to the fact that the difficulty and cost of protecting the growing number of civil nuclear facilities against criminal or terrorist activities will increase accordingly. At the same time, such a development would result in the spread of knowledge of nuclear technologies, as well as an increase in the number of civil facilities offering the potential for the production of nuclear weapons (reprocessing, uranium enrichment). Examples are already to hand with non-nuclear Japan⁷⁵, Brazil, Iran, Argentina and South Africa. In addition, a public debate on nuclear weaponry has started in Japan since North Korea carried out its nuclear test.⁷⁶ These developments will lead to a general increase in the ability of non-nuclear-weapons states to obtain nuclear weaponry more quickly in the event that they feel this necessary. It can also increase the probability that fissile materials will be diverted illegally, especially where state or societal structures are collapsing. Due to the fact that there are a far greater number of states with civil nuclear programmes than there are with military nuclear programmes, the general risks arising from collapsing states are higher in this regard. It should also be remembered here that facilities for the permanent storage of nuclear waste must in some cases be securely maintained for thousands of years. How can these risks be contained, and mastered?

2.3.3 Evaluation

Efforts to pursue a policy of global non-proliferation are currently faced with considerable challenges for which there are as yet no compelling answers in many cases. On the positive side, it should be noted that it has been possible to keep numerous states from obtaining nuclear weapons (Argentina, Brazil, Iraq, Libya and perhaps Algeria) or to peaceably bring them to give up their nuclear weapons

⁷⁵ In Japan, the advantages and disadvantages of nuclear weaponry have become a subject of debate since North Korea's nuclear test on 9 October 2006, in spite of the people's critical attitude towards nuclear arms. Cf. *supra*, Editorial, Japan's Nuclear Debate, in: The Asahi Shimbun from 21 October 2006, <http://www.asahi.com/english/Herald-asahi/TKY200610210133.html>.

⁷⁶ Cf. *supra*., Govt to steer clear of N-issue / Discussion over possessing nuclear arms left to 'individual views', in: The Yomiuri Online from 30 October 2006, <http://www.yomiuri.co.jp/dy/national/20061030TDY03001.htm>.

(Kazakhstan, Belarus, Ukraine and South Africa). Another positive development was the unlimited extension of the Nuclear Non-Proliferation Treaty in 1995.

At the same time, however, the long-held nuclear ambitions of Iraq, North Korea and Iran have resulted in crises for the policy of non-proliferation, while the development of Pakistan into a new nuclear power in 1998, coupled with problems with Russia in the field of strategic arms control, have served to underline the criticisms voiced by conservatives in the USA of the concept of nuclear arms control and disarmament. The end of the US agency which was responsible for this policy and its integration into the US State Department between 1997 and 1999 symbolised this change, as did the refusal of the US Congress to ratify the Comprehensive Nuclear Test-Ban Treaty. The USA has increasingly been attempting to compensate for the UN's weakness, something which has been the object of its criticism, by improving its own military capabilities. In this view, maintaining a position of superiority also serves politically to promote international security. This approach was initially given added credence due to the terrorist attacks of 11 September 2001 and the results thereof, yet the invasion of Iraq in 2003 and its consequences have resulted in the opposite of the effect intended for North Korea and Iran, whose nuclear ambitions have actually been strengthened as a result.

In light of the growing dangers, nuclear-armed states need to strengthen their cooperation vis-à-vis non-proliferation policy. In particular, it is of the utmost importance that those nuclear-weapon states who have yet to accede to the NPT be integrated into the framework of international security policy responsibility, and that they be brought into line with the standards outlined in the NPT Treaty. This is why the USA's cooperation with Pakistan and India, neither of whom is a member of the NPT, is of such importance, even if it might under some circumstances have a negative effect on the prevention of further proliferation.

Numerous quite helpful initiatives such as the Proliferation Security Initiative (PSI) are essentially based on the shared interests of participating countries and on a corresponding catalogue of principles. Measures of this kind can result in security policy benefits insofar as there is a sufficiently cooperative international environment. Should this environment become fragile, however, measures such as these can lose their security policy function practically overnight on account of their lack of binding political power. These initiatives are only able to offer a limited reduction in the dangers and risks posed by the existence of nuclear weapons of mass destruction due to the fact that they are only designed to stabilise deterrence. It is only through overcoming

nuclear deterrence itself as a result of the proscription of all weapons of mass destruction and their wholesale elimination that the dangers arising from the existence of these weapons can be eliminated. This is also the extent of the basis of the consensus which has been established to date between non-nuclear-weapons states and nuclear-weapons states with regard to the necessity of global non-proliferation policies.

2.4 Peace-policy challenges posed by the current drive towards nuclear armaments

The preceding stocktaking of both positive and negative developments in the field of nuclear armaments makes it clear just how much the conditions have changed under which policies concerning the prevention of war, arms control, disarmament and non-proliferation must be considered.

It is not only the possibility that nuclear deterrence amongst current nuclear powers might fail that presents a constant danger to world peace, for new nuclear powers such as Pakistan and North Korea, perhaps soon to be joined by Iran, may make peace and international security even more fragile within the current adverse global situation (2.4.1). These states may also drive additional countries to undertake attempts to obtain nuclear weapons, gravely reducing the prospects of preventing war and maintaining stability in crises (2.4.2). In addition, as the number of nuclear powers increases, so too does the risk that a nuclear-armed state might suffer a collapse (2.4.3). Finally, international terrorism has taken on a new dimension since the attacks of 11 September 2001, because current conditions mean that the chance that terrorists might gain access to the means to construct nuclear weapons, sensitive materials or even to fully functional nuclear weapons is increasing (2.4.4). The probability of a nuclear war will be increased by the interplay of these processes unless nuclear disarmament and the prohibition of nuclear weapons as weapons of mass destruction are resolutely implemented in the political sphere.

2.4.1 Reducing the problems which have confronted global governance to date

In spite of the foundations of an international legal framework for ensuring peace which have been laid through the United Nations in particular, there is still no body with global authority which is able not only to monitor compliance with this framework, but which is also able to exert its authority in a credible and impartial manner against any

party that infringes upon it. In spite of their tremendous efforts, neither the UN nor regional security organisations have yet been able to show that they are up to this task. Even so, this political weakness is due in part to the conscious decisions made by the member states charged with upholding these structures, decisions which can and must be improved.

In the past, the USA increasingly sought to take effective responsibility for global governance itself in some areas of international policy, something which led to undeniable accomplishments in the field of arms control and disarmament in particular. Experience has shown that the limited power of international institutions and regimes is a key reason that many things simply cannot be managed or put into practice without a powerful player – or even better, without the cooperation of multiple powerful players. Yet this policy has proven to be counterproductive when conceived in too unilateral a fashion, and when it has been focused too strongly on military power. This development has caused the security policy importance of the UN Security Council to increase once again, but its structure means that it can serve as no more than a temporary solution to the problem, which is the need for some sort of entity which possesses sufficient legitimacy to enforce international law. This is due to the fact that the Security Council in its current form is dominated by five nuclear powers, each of which is able to block any decisions made against it or against others.

Whether or not the spread of weapons of mass destruction can be prevented in practice therefore depends to a considerable degree on whether the nuclear powers that dominate the UN Security Council are willing and able to cooperate in the field of security policy to the degree necessary on issues of nuclear arms controls, disarmament and non-proliferation. One positive development in this regard is the fact that since North Korea conducted its missile and nuclear tests in 2006, the USA has not only been coordinating its interests with the other four permanent members of the Security Council, but has also been taking part in constructive negotiations concerning the denuclearisation of North Korea in a multilateral framework, the six-party talks. It is to be hoped that this cooperation will be continued by all involved.

At the same time, however, a number of developments are threatening to devalue the UN Security Council. Firstly, the number of nuclear powers which do not belong to the Security Council, or which are only temporarily represented due to the fact that they are not permanent members thereof, is growing. This is increasingly restricting the UN Security Council's freedom of action in the field of security policy. Secondly, so long as the nuclear powers with the status of permanent members of the Security Council

concentrate solely on the objective of limiting the spread of nuclear weapons, while neglecting to reduce their own nuclear potential, they are merely attempting to secure their nuclear primacy in contravention of their treaty obligations (NPT Treaty, Article 6). This is a development which could throw the legitimacy of Security Council decisions into question, particularly in areas of relevance to proliferation, and might even create new incentives for proliferation.

With the end of the Cold War, local and regional conflicts are no longer dominated by the dual structure that characterised the East-West conflict.⁷⁷ An international situation that appears to be less predictable can foster the probability of new nuclear states coming into being in numerous ways. The greater the degree to which such states see their security needs or international law being insufficiently respected by other states, the greater their desire to obtain nuclear weapons will be. The option of nuclear weapons can also appear attractive to countries who see this as a means of compensating for the loss of political or economic status (Pakistan, North Korea, Iran). Larger states under authoritarian governments might also attempt to gain nuclear arms in order to expand or secure their regional hegemony (Iraq, Iran). This step will be made even easier by what is now the likely spread of civil nuclear energy and its associated scientific and technological progress around the globe. With the nuclearisation of North Korea, one of the poorest states in the world, there is now yet another motive to try and obtain nuclear weapons: not only might they ensure the security of the regime, but they can also help to safeguard the economic survival of the country possessing them.

It would therefore be politically smart for those states with the greatest nuclear weapons capabilities in particular to take special account of the security needs of non-nuclear-weapons states when drawing up their military doctrines and planning, and to take the lead in controlling and eliminating nuclear weapons in order to offer an example and minimise the incentives for proliferation. This would also give new impetus to the expansion of nuclear weapon-free zones. It would also be advisable, however, to reform the UN Security Council so that the influence of non-nuclear-weapons states is increased, and thus to increase the readiness of nuclear-weapon states to compromise. An expansion of the group of permanent Security Council members to include politically important non-nuclear states from more than just one hemisphere would therefore be advisable, as long as this does not reduce the capacity of this body to take action.⁷⁸ On the other hand, this gives rise to the question of how the rising number of

⁷⁷ Naturally individual governments also attempted to use the East-West conflict to serve their own interests, meaning that there was actually a mix of each in reality.

⁷⁸ An expansion to 20 or even 25 member countries is under discussion as part of the UN reforms. The USA is working to achieve an increase of no more than one or two member states. China and the

nuclear-weapon states that are not members of the UN Security Council might be better integrated into the framework of joint responsibility for global security and peace without granting recognition of their status as nuclear powers under international law. This is certain to give rise to conflicting objectives which cannot be fully resolved even through compromise. Informal bodies such as the G8 or G20 states are also capable of performing tasks related to preserving international peace to a limited degree, yet they each suffer from the fact that their membership structures either cannot be adapted, or cannot be adapted quickly enough to dynamically changing global structures.⁷⁹

Political and societal conflicts involving systems and standards between the member states in global and regional security institutions such as the UN, OSCE and AU pose a core problem of legitimacy. This is particularly true where countries under authoritarian governments which violate human rights form the majority in such institutions, and do not see their own international security interests as being compatible with those of democratic nations. In the UN Security Council, democratic states are currently able to protect themselves against any such decisions which are contrary to their interests thanks to the veto power of the USA; France and the United Kingdom. The manner in which this situation might be changed will be decisive when expanding the Security Council. Even today, countries under authoritarian regimes have a majority in the UN General Assembly and in other regional security institutions, and will do so for the foreseeable future even if the number of democracies continues to increase.

The dynamic economic growth of China and India, the fact that Russia is once again growing stronger as the second-biggest nuclear power, and the gradual deepening of the EU, which may soon be followed by a similar structure in Southeast Asia, all indicate that the coming international system will be more multipolar in nature. This may well hold the risk of a multipolar nuclear arms race if confrontation were to take precedence over cooperation in the global political sphere. In light of growing multipolar structures, democratic states are increasingly feeling it necessary to increase their cooperation with authoritarian nuclear states and large non-nuclear states (China, Russia, Pakistan, Iran, Nigeria, North Korea) in order to maintain international peace. The cost of this, however, can be to preclude opportunities to help achieve a guarantee of human rights standards and the principle of separation of powers and the rule of law in such

USA have put the UN reforms on ice for the time being. Cf. Martin Ortega, *Building the Future, The EU's Contribution to Global Governance*, EU-ISS, Chailiot Paper No. 100, Paris, April 2007, 84-90.

⁷⁹ Cf. Jeremy Greenstock, *Globalization or Polarisation: Where are we heading?*, in: *International Relations*, 21/1, March 2007, 104f. Greenstock was the United Kingdom's Ambassador to the UN for many years.

countries. These decisions are therefore justifiably controversial in democratic nations in particular.⁸⁰

2.4.2 Problems posed by nuclear deterrence for the ability to prevent war and maintain stability in crises

The overall situation pertaining to nuclear deterrence has not improved; in fact, it has deteriorated, for a number of reasons. It is true that the USA and Russia, as well as France and the United Kingdom, were working to stabilise the structures of nuclear deterrence into 2001 (reductions in destabilising land-based multiple warheads, lowering the level of alert, improving information on exercises and tests involving nuclear weapons and their delivery systems), and the result was a reduction in the number of nuclear weapons and warheads, as well as an attempt to maintain and improve the protection of military nuclear facilities. However, this limited stabilisation certainly did not further the objective of overcoming the fragile concept of nuclear deterrence as such, and even these limited achievements may be endangered by the USA's efforts since 2002 to create a global missile defence system. New arms races involving multiple warheads and low-flying long-distance cruise missiles will loom unless there is a resumption of targeted efforts to achieve strategic arms control and disarmament that include strategic missile defence.

Talks on nuclear arms controls and disarmament have come to a standstill in practically every area, however, apart from the six-party talks concerning North Korea. Not only does this threaten to prolong indefinitely nuclear deterrence and all of its inherent risks and instabilities, but it also means that new nuclear states are increasing their nuclear potential. Unlike previous nuclear powers, however, they are unlikely to represent stable deterrence over the long term, for due to costs and a lack of the necessary technological expertise, they are without either an "assured second-strike capability" or sufficient physical defences against possible conventional or even nuclear strikes aimed at destroying their nuclear capabilities. The increasing vulnerability of such nuclear capabilities that arises from improved satellite technology and the increasing accuracy of offensive weapons systems results in instability in crisis situations that considerably increases the likelihood in coming decades of regional nuclear wars which might escalate into global wars.

⁸⁰ Cf. for more in this regard, Garry Kasparov, *The Problem: Dictators, A Global Magna Carta*, in: *Foreign Policy*, May/June 2007, 36-37. It is for this reason that the USA withdrew from the UN Human Rights Council.

In addition, most of the new nuclear states and nuclear threshold states are not integrated into, or are only slightly integrated into internationally stabilising arms control and disarmament negotiations, confidence-building dialogue structures and cooperative security policy relationships. The leadership of nuclear states such as North Korea, Pakistan and, in future, Iran appears to be much less predictable politically than those of earlier nuclear powers. Some of these states even support terrorism directly (Iran) or indirectly (Pakistan). In a situation such as this, the stability (always precarious) of nuclear deterrence threatens to fall even further, thus increasing the risk that it could fail. This will be even more true with the addition of further nuclear-armed states.

States such as the USA which have global security obligations to fulfil are also driven by the growing number of nuclear-weapon states of regional importance to increase their own nuclear deterrent due to the need to demonstrate to their allies that they can offer a "credible" deterrent, and thus to help prevent these allies from trying to obtain nuclear weapons and the further proliferation this entails. This will be particularly applicable should a new global political conflict arise with China and/or other nuclear powers. The nuclearisation of North Korea gave rise to similar debates in Japan and South Korea which have yet to be resolved. The possible nuclearisation of Iran can be expected to add further fuel to this debate in the near future. The USA might therefore feel the need to once again maintain a larger number of tactical and strategic nuclear weapons for the defence of its allies, which would strengthen the demand for new nuclear weapons and the modernisation thereof, further impeding global strategic disarmament efforts. This might be countered by the existence of missile defence programmes, however, insofar as they are integrated into a general nuclear disarmament concept. Successful nuclear and conventional arms controls and disarmament can also – as was demonstrated by the European example – result in a considerable reduction in calls for expanded nuclear deterrence, increasing the scope for strategic nuclear arms controls and disarmament.

The ability to prevent war which constitutes the purpose of nuclear deterrence can also be diminished if the failure of this deterrent no longer has as its result a global war, but instead a limited regional confrontation between two opposing states (e.g. Pakistan and India, Iran and Israel, North Korea and Japan). This could have the result that nuclear wars appear to be more feasible, even though such wars could be expected to result in the mass and disproportionate slaughter of civilians in particular. As a result of growing international interdependencies at both the political and economic level and of the onset of climate change, the utilisation of even a few nuclear warheads could have disastrous results both regionally and globally. An escalating nuclear war between regional powers could do enormous damage to global energy supplies, and as a result

the entire world economy. Even the fear that such a conflict might be imminent could result in drastic increases in energy prices and plunging global share prices. The poorest states in particular would be powerless to deal with the economic fallout.

2.4.3 Preventing proliferation in the event of a collapsing state

The break-up of the Soviet Union, which had been the second-largest nuclear power for decades, demonstrated that the internal political and social stability even of nuclear-armed states cannot be guaranteed over the long term. The liberalisation and democratisation of the USSR allowed old conflicts that had been suppressed by the communist regime to resurface, helping bring about the collapse in 1991 of what had been a superpower with thousands of nuclear weapons into fifteen new states. This involved the creation of four new nuclear powers directly: Kazakhstan, Ukraine, Belarus and Russia; in three of these states the state and military structures required for controlling nuclear weapons were absent. Each of these four new states possessed more nuclear weapons than any other nuclear power on the planet, with the exception of the USA. This development made it horrifically clear that in future, it will not only be the stabilisation of nuclear deterrence and the prevention of war that is important, but also the stabilisation of those states possessing nuclear weapons, including their societies.

The globalisation and increasing dynamism of economic relationships and their communications structures are also causing the political and social conditions that characterise societies to change more rapidly than in the past. This not only makes it more likely that larger social divisions will arise, but also that social injustice will grow more severe, perhaps worsening the chances of specific population groups of participating in social or political life. The parties which are disadvantaged by such developments might be prone to resort more quickly to violence and to separatism, particularly if they are not offered any other real prospect for improving their situation. This can result in the increased fragility of nuclear-weapon states as well, and make it more difficult for others to calculate what type of policy they will pursue. The ability of a government to act rationally, something which is a fundamental requirement for nuclear deterrence, can quickly become less important for nuclear powers suffering from internal crises, meaning that irrational actions are more likely.

A number of states have joined the ranks of nuclear powers in recent years whose social and political leadership can be judged in some cases as being much less stable or predictable. Such states can collapse for a number of reasons, thus drastically increasing

the risk of a loss of control over their nuclear arsenals and facilities and with this the failure of deterrence. In Pakistan, the military dictatorship is already unable to guarantee the central government's monopoly on power in all areas of the country, and there have been multiple attempts to overthrow the government made by Islamic groups;⁸¹ nor can the collapse of North Korea's communist regime in the medium- or long-term be ruled out. China might also be broken up into numerous states as a result of further political liberalisation, especially as its regional authorities are already relatively autonomous of the central government in Beijing.

The simple fact that it proved to be possible to peacefully deal with the "nuclear legacy" of the Soviet Union, and to entice Ukraine, Belarus and Kazakhstan to give up the Soviet nuclear weapons which had been stationed in their countries, should not lead to an assumption that things will go as smoothly in any similar future situations, for the fact that this process encountered relatively few problems was due to the extremely cooperative international environment which prevailed at that time. In a more confrontational situation, the number of nuclear-weapon states would presumably have increased quickly, and there would already be twelve nuclear states, rather than the current total of nine. As it is, the smaller Russian state that resulted found it difficult enough to maintain sufficient control of all of the Soviet Union's nuclear weapons facilities and the nuclear scientists they had employed. It was, and will continue to be, reliant upon the additional help it receives from abroad until well into the next decade.

With dissolving state structures in particular, it is not possible to fully guarantee control over weapons of mass destruction, and scientific expertise can also end up in the wrong hands more easily in such situations. Any dissolution of a nuclear-weapon state increases the risk of the unauthorised utilisation of nuclear weapons and of proliferation within and outside of the country's boundaries. The opportunities for international and external controls also drop drastically when the dissolution of state structures takes place under confrontational conditions or even a state of war. No one can rule out such developments in future.

The imposition of external controls to maintain nuclear security in the event of a state threatened with collapse poses a whole series of questions. Who would be responsible for defining the point as of which a state is considered to be threatened with collapse, or rather, who would be responsible for specifying that a particular state has met such conditions and that it poses a danger to peace? There is still no such internationally

⁸¹ Cf. also Husain Haqqani, *The Generals' Dilemma, Pakistan and the Islamists*, in: *Current History*, 106/699, April 2007, 147-152.

recognised definition or generally valid criteria for defining a collapsing state. Only a functioning UN Security Council or the state itself is currently in the position to make such a call. What is to be done in the event that both the UN Security Council and the state itself show themselves to be unable to act? Who would then be authorised to take control over weapons of mass destruction, the facilities for their production and the scientists employed therein, what means would they be allowed to use, and at what time would they be permitted to act? Would it even be possible for an external party to exert complete control under confrontational conditions or even in a state of war? What happens if attempts to exert control end up causing the situation they are trying to prevent, namely the unauthorised utilisation of weapons of mass destruction which kill indiscriminately? What measures are made to prepare for such eventualities, and if none, would have to be developed directly? These questions demonstrate just how explosive such security problems could be. Such risks will only grow as the number of nuclear states increases, reason enough for keeping their number as small as possible. The most effective way in which this risk can be minimised is through nuclear arms controls and security policy cooperation; the only way it can be eliminated is through comprehensive nuclear disarmament.

The collapse of a state could pose an even larger problem for the security of the civil nuclear energy industry, which is growing in numerous countries. According to figures from the International Energy Agency, the number of states which are already using civil nuclear energy, at 31, is considerably higher than the nine states, perhaps soon to become ten, which are in possession of nuclear weapons.⁸² This number will presumably be increasing considerably in the years to come as a result of increasing energy prices and the consequences of higher carbon dioxide emissions for the climate, and with Myanmar, Egypt, Saudi Arabia, Syria, Tunisia, Morocco and Libya, the majority of these new nuclear energy countries are under authoritarian governments. In addition, no solution has yet been found for providing a safe final storage location for nuclear waste, some of which must be kept for many thousands of years. Regulations establishing minimum international safety and security standards for this are long since overdue.

⁸² Cf. Doug Struck, In the Global Energy Rush, Nuclear Gets A Resurgence, in: The Washington Post, 6 January 2007, A01.

2.4.4 Measures to combat international nuclear terrorism

Since the attacks on 11 September 2001 at the latest, it has been necessary to confront the question as to how terrorists who are willing to undertake such violent acts are to be prevented from gaining access to weapons of mass destruction, perhaps even nuclear weapons.⁸³ In these situations it cannot be expected that perpetrators would give thought to damage limitation or to observing accepted norms (particularly as they pertain to the abhorrent nature of indiscriminate killing). These concerns have caused those states which see themselves as being particularly threatened by such terrorist attacks to feel compelled to initiate measures with which they can preventively and pre-emptively combat international terrorism.

Yet in most cases, a terrorist cannot be recognised as such before carrying out their act, and in cases of doubt the presumption of innocence must apply for potential terrorists as well. In this situation there is a considerable danger that the military fight against terrorism in particular might pose a greater threat to the life and physical wellbeing of innocents than it does to that of terrorists. States which use their armed forces to fight against terrorists which are conducting military operations in other countries must therefore ensure that there is sufficient communication with local authorities affected by the fighting in order to pay proper attention to the proportionality of their response and to protect the innocent, for there is otherwise a danger that military strikes against terrorists might result in an overall strengthening, rather than weakening, of international terrorism. Even when combating terror, one thing remains imperative: when force cannot be avoided, it must at the very least be minimised. In particular, it is necessary to fight terrorist structures by eliminating the political and social causes which allow them to take root in society. This is where the political and financial focus of the fight against terrorism should be concentrated, and it is only here that it can be won.

The possibility that terrorists might come into possession of nuclear materials or even nuclear bombs has certainly increased in importance since 11 September 2001. It is generally assumed that they would be capable of building a so-called "dirty bomb" were they to come into possession of nuclear materials of whatever provenance. Even so, there is good reason to doubt that terrorists would currently be capable of developing or acquiring nuclear explosives without the sustained support of a nation

⁸³ This is not an entirely new security issue. On 20 March 1995 in Japan, the Aum Shinrikyo cult released sarin, a chemical warfare agent, in three underground train stations. Eleven people were killed, and more than 5,500 injured. Attacks had been attempted previously, in 1990 and 1993, using anthrax, yet they were unsuccessful. Cf. David E. Kaplan, Aum Shinrikyo, in: Jonathan B. Tucker (publisher), *Toxic Terror, Assessing Terrorist Use of Chemical and Biological Weapons*, MIT Press Cambridge 1999, 216.

state.⁸⁴ As a result, international efforts to improve the protection of civil and military nuclear installations and depots have increased markedly, as have controls over the export of dual-use goods. Yet the decisive question pertains to the circumstances under which states, be it intentionally or unintentionally, might make it possible for terrorists to gain access to such materials. For one thing, terrorist organisations which are active in the territory of nuclear powers might accelerate the collapse of such states, thus making it easier for them to gain possession of such weapons. Pakistan, which has had nuclear weapons since 1998, must be mentioned here as an example. Another way in which this might occur is that states, either directly or indirectly, might support efforts to arm terrorist groups with nuclear weapons, as in the case of the network run by Khan, a Pakistan nuclear scientist, which has since been dismantled. Should Iran join the ranks of nuclear powers in the near future, this could increase concerns for such developments. Teheran supports Shiite terrorist groups in Iraq and Islamist terrorist groups such as Hamas in their fight against Israel. There is certainly a difference between supporting terrorists with conventional weapons and supporting them with weapons of mass destruction, and there is also considerable doubt as to whether the Iranian government would be willing to dispense such weapons freely, yet states which support terrorist groups represent an additional risk, even more so when their political leadership appears less predictable. The existence of the wide-ranging Khan network, though it has now been dismantled, is yet another example of the importance which must be given to monitoring the activities of high-ranking nuclear scientists in all nuclear states.

North Korea might also become a problem in this regard should the six-party talks fail. While it has neither carried out nor directly supported any terrorist attacks since 1987, it continues to supply conventional weapons and munitions to a variety of militias all over the globe. North Korean negotiators also issued verbal threats to the USA during the three-party talks in April 2003 and the six-party talks in August 2003 that they intended to provide unknown third parties with their technological expertise pertaining to the construction of nuclear weapons.⁸⁵

This makes it clear that nuclear arms controls and disarmament can play an important indirect role in the fight against international terrorism. While terrorists are not likely to

⁸⁴ Cf. for more information in this regard Alexander Kelle/Annette Schaper, *Bio- und Nuklearterrorismus, Eine kritische Analyse der Risiken nach dem 11. September 2001*, HSKF Report 10/2001, Frankfurt am Main 2001, II and 19ff.

⁸⁵ Cf. Emma Chanlett-Avery / Sharon Squassoni, *North Korea's Nuclear Test: Motivations, Implications, and U.S. Options*, CRS Report for Congress, Updated 12 December 2006, Congressional Research Service, Washington, D.C., 12.

participate in any arms control or disarmament negotiations, the international community of nations can most effectively hinder the construction or acquisition of nuclear weapons by such groups by drastically reducing the number of nuclear weapons and production facilities, and by securely storing the dangerous materials required for such purposes.

3. Overcoming nuclear deterrence – an immutable objective of peace policy

Thoughts and recommendations for dealing with the growing significance of nuclear armaments

3.1 The current relevance of the Church's doctrine of peace

Since the Second Vatican Council, the position of the Catholic Church and its doctrine of peace has been that it can only tolerate nuclear deterrence for a limited period of time, due to the risks and costs which this deterrence entails, and cannot accept it morally as a lasting principle of maintaining peace. This position has been expanded upon emphatically on numerous occasions, in particular through the pastoral statements from various bishops' conferences since 1983. The prerequisite for such conditional toleration is that such deterrence must appear to be an essential method of preventing war at a given time. The deterrence which is thus granted conditional toleration is to be implemented such that it not only makes it possible to pursue successive and general disarmament, but that it actually facilitates this outcome, and developments and trends in the field of nuclear armaments are lending this position of the Church additional validity and urgency.

An ethical evaluation of today's security policy situation must focus on the criteria of preventing war and on compatibility with disarmament. In spite of a not inconsiderable number of events since 1983 which can be evaluated positively on the basis of these criteria, overall it has become obvious that the stability of mutual deterrence has continued to erode, and thus with it its ability to prevent war, something which is due especially to further nuclear proliferation. A considerable number of political and strategic military analysts agree with the Church's concerned view of the situation. There is a tremendous risk that the essential search for alternatives to deterrence as a means of preventing war is no longer being pursued with the urgency that would seem warranted during "the interlude granted us from above".⁸⁶ Yet it is this very expectation which constitutes the basis for this continued toleration of nuclear deterrence, and observation of the trends which are currently evident with regard to nuclear armaments

⁸⁶ Gaudium et spes 81.

is giving increasing weight to those who argue that this continued tolerance is increasingly losing its justification.⁸⁷

The Council saw a direct connection between overcoming deterrence as a strategy for the prevention of war and overcoming war itself, as it is obvious that a wealth of contradictions, risks to stability and other negative effects of nuclear deterrence which are difficult to manage politically are still to be expected in international relations, even when defensive motives prevail on all sides. This is even more the case when political rhetoric nourishes the view that other states are harbouring aggressive intentions, intentions which can only be met though a country's own military measures, which must therefore be as diverse and numerous as possible. This unsolved structural security problem in the international system continues to be a primary source of the current trend towards nuclear deterrence becoming ever more dangerous – and ever more difficult to overcome.

This means that a position on these developments which is based on the ethics of peace must highlight the fundamental problems entailed for peace policy which need to be rectified if security measures that make use of military means – and in particular nuclear armaments – are to be rendered politically and ethically less acceptable. In this regard it is important to retain a focus on all of the aspects of a "just peace"; any restriction to simply security or armament policy aspects would be disadvantageous. Even so, the broad horizon of peace doctrine should not lead us to lose sight of the specific security policy challenges.

It is imperative that the processes which are currently destabilising the system of deterrence be halted and reversed to the greatest degree possible, as the growing risk that deterrence might fail – causing catastrophic consequences – must be minimised. In light of the fact that the continued tolerance which was expressed in the 1980s and which was always combined with appeals to all sides for disarmament was all too often either ignored by those in power or was misconstrued as an acceptance predicated upon the ethics of peace, something which allowed the Church's position to be exploited, it is particularly important that the Church clarify its position with regard to the ethics of peace.

Use of the word "continued" has never been meant to be understood as an attempt to legitimise the simple continuance of deterrence. It should merely serve to retain the

⁸⁷ This is the argument that was made back in 1997 in a report issued by 75 Pax Christi bishops in the USA entitled "The Morality of Nuclear Deterrence", available at http://www.ccnr.org/pax_christi.html.

necessary political leeway to clearly reduce the dependence of efforts to prevent war on the means of nuclear deterrence and to achieve the strived for full elimination of nuclear armaments and scenarios for their utilisation. Political action must be measured against what it actually does with this leeway.

3.2 The proscription and elimination of nuclear weapons as a political challenge

The Church's doctrine of peace has been confronting this issue ever since nuclear weapons came into existence, and current developments highlight the seriousness of the issues involved. In light of the growing importance of nuclear armaments in international politics, it is currently of the utmost importance to ensure that possibilities for lessening the drive towards nuclear armaments be found which help achieve a stabilisation of this security policy constellation. The ultimate goal must continue to be the comprehensive elimination of nuclear armament capabilities, a category which, in spite of all efforts at modernisation, continues to deserve its designation as "weapons of mass destruction". An essential step on the road to the elimination of nuclear weapons is ensuring that they do not have any international legitimacy. With regard to biological and chemical weapons, which are also weapons of mass destruction, it has proven possible to deny their international legitimacy and achieve binding disarmament obligations.⁸⁸ This same objective must also apply to nuclear weapons. If not, there is a danger that the denial of legitimacy which has been achieved for the other categories of weapons of mass destruction might begin to be called into question.

In order to achieve the prohibition and elimination of nuclear armaments, it is necessary to establish and implement both regional and global security structures. No longer can nuclear armaments be seen as offering an advantage; instead, they must entail considerable disadvantages. Nuclear disarmament depends to a decisive degree on whether nuclear weapons can be rendered increasingly obsolete in both a military and political sense, for the dynamic nature of perceived military threats can only be

⁸⁸ Cf. for biological and chemical weapons, the convention for the prohibition of the utilisation of asphyxiating or poisonous gases and of bacteriological methods of warfare which was signed into force on 17 June 1925 (Geneva Protocol), which prohibits the utilisation of chemical and biological weapons in warfare and which was considerably expanded and improved upon via the Biological Weapons Convention of 1972 and the Chemical Weapons Convention of 1997. The production and stockpiling of biological weapons is internationally prohibited through the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on their Destruction. This convention does not make any provisions for a verification mechanism, however. The Chemical Weapons Convention prohibits the development, manufacture, possession and transfer of chemical weapons and includes a verification mechanism.

overcome with a sustained policy of peace. The time horizon for the crucial objective of disarmament cannot be drawn out indefinitely – visible results are essential.

There are a number of profound ethical arguments for the pursuit of peace through this policy, and it is also in the long-term interests of all involved. Wherever it becomes clear that the armaments of a particular state are serving to increase the level of threat perceived by other states – creating the possibility that the results of a state's own arms policies can be counterproductive – political clarification is urgently necessary in order to eliminate such fears. Time is short, as current trends in nuclear proliferation and the effects thereof are threatening to increasingly curtail any room there might be for undertaking effective action.

The following considerations are therefore intended in particular for the short- to medium-term phase in which the decisive steps are taken to pave the way for stopping, and perhaps even reversing, the trend towards the revitalisation of strategic nuclear planning and the initiation of corresponding armament efforts. It is only this form of sea change that can pave the way for reducing the importance of nuclear armaments, pursuing nuclear disarmament and making it possible to overcome nuclear deterrence.

3.3 A plea for an international code of conduct prohibiting the further proliferation of nuclear weapons

As a first step, former Secretary of State Kissinger and other prominent former officials and politicians in the USA proposed concrete measures in January 2007⁸⁹ – not least in order to restore the credibility which had been sacrificed by the nuclear powers regarding their nuclear disarmament obligations and to help combat acute threats: an extension of the warning times and a lessening of the danger of accidental or unauthorised use of nuclear weapons; elimination of short-range missiles stationed near conflict flashpoints; ratification of the Comprehensive Test Ban Treaty by the USA and other important powers; a global increase in the security standards for nuclear weapons and fissile materials; a more effective monitoring system for uranium enrichment for civilian purposes and a stop to such enrichment for military purposes; strengthening efforts towards the solution of regional conflicts which might otherwise give rise to new nuclear states. The authors of this declaration based their proposals in no small part on the agreement reached at Reykjavik in 1986, in which US President Reagan and the

⁸⁹ Cf. G. P. Shultz / W. J. Perry / H. A. Kissinger / S. Nunn, A World Free of Nuclear Weapons, in: Wall Street Journal, 4 January 2007, A15.

General Secretary of the Communist Party of the Soviet Union, Gorbachev, declared that their objective was "a world free of nuclear weapons".

A code of conduct for nuclear powers could serve as a useful instrument for promoting the causes of security and stability in the international system in a world increasingly characterised by multipolarity and a growing number of nuclear-weapon states. Naturally the goal of such efforts cannot be to set into stone the asymmetry between nuclear and non-nuclear states, which is why the code of conduct should be expressly linked to the disarmament article (Article 6) and Article 1 of the Nuclear Non-Proliferation Treaty (NPT).

In a multipolar world where all states enjoy the same sovereign rights pursuant to the UN Charter, attempts to achieve military superiority represent a serious challenge to the pursuit of nuclear arms controls and disarmament. The concept of nuclear deterrence, something which is in many ways a fragile structure, cannot be overcome in this way; instead, the situation is becoming more serious with the addition of new nuclear states. While the existence of asymmetrical political power is unavoidable, the abandonment of a declared policy of pursuing absolute superiority would be an important prerequisite for facilitating the success of a general process of nuclear disarmament. In addition, it is the largest nuclear powers who are called upon to set an example with nuclear arms controls, disarmament and non-proliferation, in order to promote a readiness for the control, restriction and elimination of these weapons among other nuclear states as well. Due to the fact that efforts to achieve broad-based missile defence systems can also result in an improvement of the offensive capabilities of nuclear states, they cannot be excluded from moves to implement arms control and disarmament with regard to strategic potential.

It is also imperative that all nuclear states adapt their military doctrines and planning to the political and contractual obligations entailed by the NPT. In particular, the 'negative security guarantee' (a pledge to neither utilise nor threaten the utilisation of nuclear weapons against non-nuclear-weapon states) must be strengthened, particularly in light of the fact that the process for establishing nuclear-weapon-free zones (Pelindaba Treaty) has slowed noticeably since 1995. Even so, the nuclear-weapon states issued assurances at the NPT Review Conference in 2000 that they would seek to reduce the role of nuclear weapons in their military policy, and the renunciation of a nuclear first strike would be an important step on the road to this objective. In the same vein, it is not only the preventive – and, under international law, illegal – use of nuclear weapons which

must be eliminated, but also the pre-emptive utilisation of such as a result of the destabilising effects which are entailed.

Conflicts arising between nuclear-armed states which endanger international security require permanent dialogue as well as confidence building measures. It is necessary to avoid situations where misperceptions arise in one state about the policies of another, and to create a framework where the actions of the various parties are transparent, in order to increase the chances for the peaceful settlement of such conflicts. Arms controls and disarmament can play an auxiliary and supporting role in this regard, especially to the degree that they provide lasting improvement in the stability of regional conflict prevention systems during crises.

Unequal normative standards in the non-proliferation policies of individual states vis-à-vis partner countries should be fundamentally avoided in order not to create additional incentives for other states to pursue proliferation. This requires that regional instabilities be reduced to such a degree that the elimination of nuclear capabilities seems a reasonable option even for countries which base their weapons policy on security problems that seem otherwise insoluble, meaning that any discussion of eliminating varying standards in non-proliferation policies is dependent upon the emphasis given to the creation of regional security structures under which such standards can be rendered obsolete. In the Middle East in particular, it is the lack of such structures which constitutes a decisive reason for the arms race prevailing at all levels, including efforts to attain nuclear weapons.

Insofar as new states obtain nuclear weapons in spite of all efforts to prevent proliferation, these states should be integrated into international dialogue processes and arms control measures as quickly as possible, in order to limit the further spread of insecurity and instability in the international system. The imposition of sanctions or a policy of isolating such states must be examined closely in order to ensure that it does not have a counterproductive effect and thus unintentionally give further impetus to proliferation, which is why it should be coupled with the prospect of cooperative efforts to overcome the problems of proliferation. Efforts should also be undertaken to ensure that export control regimes intended to prevent further proliferation do not result in keeping developing countries from enjoying the benefits of nuclear power generation. Not only does Article 4 of the NPT state that all parties to this Treaty are entitled to the utilisation of nuclear technology for peaceful purposes, but it also expressly declares that non-nuclear states shall be assisted in their efforts to obtain such technology by those states which are already in possession of it. Even so, developing countries

generally require international advice and support for the protection of these facilities and for monitoring the activities carried out therein in order not to endanger the objective of non-proliferation. It is also necessary to ensure that a dialogue is conducted which weighs not only the advantages, but also the risks and disadvantages of the civilian use of nuclear power, and which also explores alternatives.

There is currently no solution to the problem of how to deal in future with nuclear states whose state structures threaten to collapse or are already in the process of collapsing. It would be useful here to develop a voluntary code of conduct which covers the civilian uses of nuclear power at a minimum, as this would contribute to greater transparency and security. New forms of international cooperation need to be developed in order to minimise the risk of unauthorised access to fissile materials in the event that state structures should disintegrate. The objective must be to temporarily place responsibility for the supervision and protection of civilian nuclear installations and storage facilities in collapsing states under the purview of international organisations.

3.4 Specific tasks of the Church

While overcoming the aforementioned problems is primarily the responsibility of the political sphere and the community of nations, the urgent problems thrown up by nuclear proliferation present a specific challenge to societal organisations, including churches. It is necessary to overcome the war prevention strategies which are based on the principal of deterrence with an ethical and rational approach that allows the culture of life propounded by John Paul II to flourish.

The endeavour to overcome the reliance on nuclear deterrence and achieve nuclear disarmament is certainly a unique problem among the many problems currently confronting the world, as it is an undertaking which embodies like few others our cultural and political ability to pursue the good of humanity. As with any fundamental change, the political and cultural process required to achieve it will require a great deal of time and energy. The Church must contribute with a resoluteness that is not rigid, and with a patience that is not indifferent. This endeavour can take many forms.

It would be hard to exaggerate the importance of raising these grave issues pertaining to the ethics of peace and political conflicts in an appropriate, and especially a competent, manner, which is why the participation of representatives of the Church in efforts to qualify the security policy debates currently taking place within their own countries is

called for. In particular, they must work to highlight the ethical implications of the many proposals and concepts which are discussed in detail and which are meant to provide increased security, in order that they can point to their more problematic aspects, thus allowing these to be given sufficient attention in responsible decision-making processes. It is also important to strive to keep the entire scope of peace policy in view, and not to allow it to be restricted through the pressures exerted by security policy developments.

The Church should support actions aimed at raising awareness of the results of developing and stockpiling weapons of mass destruction which endanger the safety of humankind. This can help to sharpen political awareness of the urgency of nuclear arms controls and disarmament and increase international security. Accordingly, the Church should make conscious use of days of remembrance such as those for the atomic bombing of Hiroshima and Nagasaki, and should work to introduce issues pertaining to arms control and disarmament to events concerning peace and security, as well as at international church conferences. Efforts to support initiatives which have long pursued a nuclear-weapon-free world in peace and justice should be recognised and redoubled.

It has been a particular concern of the Church to help arouse the conscience of those who are professionally involved in the production of nuclear weapons, the maintenance of deterrence via such weapons and their spread.⁹⁰ They should be able to decide based on their own conscience which developments they are willing to take part in, and which they are not.

It is obvious that the problems being discussed here go beyond the framework of the nation-state, and this is something which must also be taken into account in the method with which they are to be confronted. It is absolutely essential that discourse is not limited by national or cultural boundaries. The Universal Church's global experience in in-depth dialogue among the Local Churches, within the ecumenical Christian community and between religions and cultures represents an essential resource for the development of those international encounters which we so urgently require. The Universal Church is called upon to place its resources as a global church at the service of this undertaking.

This is particularly true for contributions to strengthening trust between the affected societies and parties. Trust is one of the most important resources in international relations, and it is unlikely that any positive developments will be achieved without this

⁹⁰ Cf. statements on this matter in the pastoral letter from US bishops of 1983 entitled "The Challenge of Peace: God's Promise and Our Response" available at <http://www.usccb.org/sdwp/international/TheChallengeofpeace.pdf>.

fragile component. The Church must therefore strive, through diplomacy and offers of mediation, to contribute to the creation of trust wherever possible, helping facilitate talks between representatives of parties to the conflict. In light of the existing distrust and historic traumas to be found in North-South relations in particular, something which often offers fertile ground for nationalistic phenomena on a mass scale and calculated conflict escalation, the importance of confidence-building measures can hardly be exaggerated. In this regard, the Church should, through actions such as support for global ethics and earth charter initiatives, help ensure that objectives such as building confidence and supporting life, justice and reconciliation are given greater weight as orienting categories of political concepts.

Last but not least, the Church is called upon to intensify its Prayer for Peace, just as it has been leading the way for years with its World Day of Peace. Prayer as a source of hope has not infrequently made possible the first steps towards real change.⁹¹

⁹¹ These and other aspects of Church action and the Church's mission to bring peace have been described in a differentiated and systematic manner in the statement issued by German bishops entitled "A Just Peace", published by the Secretariat of the German Bishops' Conference, Bonn, September 2000, particularly in Chapter III "Church Tasks".

List of abbreviations

ABM	Anti Ballistic Missile (Treaty)
ASEAN	Association of Southeast Asian Nations
AU	African Union
BWC	Biological Weapons Convention
CD	Conference on Disarmament
COCOM	Coordinating Committee on Multilateral Export Controls
CRS	Congressional Research Service
CTBT	Comprehensive Test Ban Treaty
CWC	Chemical Weapons Convention
DPRK	Democratic People's Republic of Korea
EU	European Union
GS	Gaudium et Spes
IAEA	International Atomic Energy Agency
ICBM	InterContinental Ballistic Missile
INF	Intermediate Range Nuclear Forces
HCOG	Hague Code of Conduct against Ballistic Missile Proliferation
HSFK	Hessische Stiftung Friedens- und Konfliktforschung [Peace Research Institute Frankfurt]
KCNA	Korean Central News Agency
KEDO	Korean Peninsula Energy Development Organization
MOU	Memorandum of Understanding
MTCR	Missile Technology Control Regime
NATO	North Atlantic Treaty Organisation
NPT	Non-Proliferation Treaty
NRRC	Nuclear Risk Reduction Center
NSG	Nuclear Suppliers Group
NWFZ	Nuclear Weapon-Free Zone
OSCE	Organization for Security and Cooperation in Europe
PSI	Proliferation Security Initiative

SALT	Strategic Arms Limitation Treaty
SLBM	Submarine-Launched Ballistic Missiles
SM	Standard Missile
START	Strategic Arms Reduction Treaty
SORT	Strategic Offensive Reduction Treaty
TACIS	Technical Aid to the Commonwealth of Independent States
USSR	Union of Soviet Socialist Republics
UN(O)	United Nations (Organization)
UNMOVIC	United Nations Monitoring, Verifications and Inspection Commission
USD	United States Dollar