

## Chemical Weapons: Beyond Emotional Concerns

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### 1. Introduction

Some two years ago, expectations for an early conclusion of a worldwide treaty banning the production, possession and use of chemical weapons were very high. Early in 1987 the Soviet Union had acknowledged for the first time since World War II that it possessed chemical weapons; by the end of that same year it disclosed that its stocks comprised some 50,000 chemical agent tons. Although this figure was and still is widely contested in the West – especially by the United States and the United Kingdom – it reinforced the world-enveloping feeling of optimism created by the signing of the INF Treaty. The elimination of a whole range of missiles which the West thought to be also chemically capable meant that NATO supply ports and rear-area airfields could no longer be put out of action in a surprise chemical attack. In the meantime, experts from both the Soviet Union and the United States had visited each other's proving grounds. On 12 October 1987, the Board of Directors of the US Chemical Manufacturers' Association adopted a policy of support for the Chemical Weapons Convention.<sup>1</sup> This move, by one of the strongest advocates of the industry's interests in the disarmament negotiations, opened the way for implementing the fundamental principle of challenge inspections. To summarize, by the end of 1987 it was generally thought that the conclusion of a worldwide ban on the development, production, stockpiling and use of these weapons at the Geneva Conference on Disarmament was a matter of months, a year at most.

A rude awakening was to come. Indeed, few were those who did not share that

optimism. These were not military hawks or die-hard pessimists, but technical advisors to the delegations at the Geneva Conference on Disarmament. Uneasiness had crept in over the initiation of the US production of binary artillery shells in December 1987. A couple of weeks later, tension amongst NATO members was to rise even further. They were stupefied when Washington – in what was to prove to be a political gaffe – announced the day after the disarmament conference had reopened that it had authorized the production of the 500 lb *Big-Eye* binary bomb. West Germany, in particular, overtly criticized the United States, as well as France, for delaying progress on the negotiations. France had submitted a proposal which would have allowed it to retain – and indeed build up – a security stock of binary chemical weapons, awaiting the commencement of worldwide destruction ten years after signing the treaty.<sup>2</sup>

On 17 March 1988 public opinion was horrified by television pictures from the Kurdish town of Halabja. Some 5,000 men, women and children were killed almost instantly, and a similar number suffered severe injuries, from multiple Iraqi chemical air bombardments. Although such use of chemical weapons was well documented from the end of 1983 on, the first open condemnation of Iraq by both East and West came only after the hostilities between Iraq and Iran had ceased in August 1988. However, between March and October that year, Iraq waged an all-out chemical campaign against its own Kurdish population, forcing them to flee to neighbouring Turkey and Iran. Tacit support by most of the world's leading nations allowed Iraq to

erode the 1925 Geneva Protocol. It is a matter of personal belief whether the recent Paris Conference has succeeded in re-establishing its authority as part of international law, but the strategic and political contexts have changed drastically.

## 2. *'Armis bella non veneris geri'*

However, in the West during the initial – but all-important – phase of politicization in the late 1970s and early 1980s, the debate on chemical warfare was overshadowed by discussions on nuclear armament and disarmament. The issue was relegated to the realm of scientists. Both politicians and the public thought it received sufficient attention at the Geneva Disarmament Conference. Only after the signing and implementation of the INF Treaty did public opinion become aware that certain other developments had been taking place. Over the past two years, and after the Halabja tragedy in particular, the subject of chemical warfare has become 'fashionable'. Peace movements have jumped on the bandwagon in search of a new strategy and policy. Governments have reacted in a very haphazard way to the problem, often applying a nuclear logic built up over the last four decades to an entirely different class of weapons. Moreover, they apply it to a class of weapons with limited military value. As such, both partners in the public debate tend to attribute too much potency to chemical arms.

Put differently, the context in which such weapons are developed and used, and particularly the political intent behind them, is far more important than the weapon as such. This statement may seem self-evident. However, it is not. The ideological context in which nuclear weapons were presented dictated that the Warsaw Pact and the Soviet Union in particular were the 'enemies'. In deterrence logic, nuclear weapons are a means to an end. They are the very fabric of security thought. Critics too, when asserting that accidental nuclear war is a distinct possibility because of the high dependency on automated procedures and technology, view the weapon as such as a

major component of the security debate.

However, who is the enemy today in the case of chemical weapons? It will be hard to brand the Soviet Union as such, in view of recent developments and its new stated policy of chemical disarmament with or without an international treaty. Nor can it be Iraq or any other country, for lack of power-projection. Because of human involvement at all levels of the command structure and in firing procedures, chemical weapons cannot spark off an accidental war. Also, chemical weapons are supplementary to existing military doctrines; they do not define them. Therefore, it is not surprising that most arguments in the public discussion are high in emotional and ideological content. Proponents and opponents generally follow the same patterns of debate used during and after World War I.

Image-building also appears to be an integral part of chemical policy-making. While the USSR is claiming the moral high ground on the international scene, high-ranking Soviet officials have apparently authorized the use of a lethal chemical agent of uncertain nature against nationalist demonstrators in the Georgian capital of Tbilisi.<sup>3</sup> The way in which the issue of the Libyan chemical plant was handled by the USA – especially when compared to its reactions towards Iraq – strongly suggests ulterior policy motives. Diverting world attention from the US binary production programme at the Paris conference might be one of them. The obsession with terrorism and a terrorist chemical threat<sup>4</sup> and the frustration with Libya's leader Kaddafi almost limited Washington's options to a second military intervention.

So, if we look beyond ideology and emotions we are left with a question that is not so easily answered: what is the chemical problem? The answer is highly relevant to the angle from which we approach chemical armament or disarmament.

## 3. *The Cradle of Modern Chemical Warfare*

On 22 April 1915,<sup>5</sup> German troops opened

from their trenches at Langemark near Ypres 6,000 cylinders containing liquid chlorine. It was estimated at the time that the attack killed over 5,000 men, wounding another 10,000. The Germans, however, only considered it as another experiment and were not ready to exploit the more than 6 km wide hole in the Western defences. The course of the war could have changed drastically at that point, but until December the Germans shifted the main thrust of their gas attacks to the Eastern front. They thus gave France and Great Britain the opportunity to develop more sophisticated protective measures and to set up a chemical warfare industry. Throughout the war the Germans were to hold the technological edge in both defensive and offensive aspects of chemical warfare. Yet, that advantage was not to give them decisive victories.

Never again in the history of chemical warfare would outright surprise be achieved in an attack against a prepared enemy. As early as the end of the spring of 1915, after which some 500 tons of chlorine had been discharged, it dawned upon the German pioneer in chemical warfare, Fritz Haber, that gas alone could not win the war.

On 12 July 1917, Germany introduced mustard gas to the battlefield. By the end of the war it had accounted for over 70% of all gas casualties in the allied armies. However, once again German military logistics failed to exploit the temporary advantage. Mustard gas nevertheless profoundly changed tactical thought. Being an oily liquid and heavier than air, this chemical settled on the soil and in shell craters and it took some time before all the substance had evaporated. It also attacked human beings through clothing, causing severe burns. Special fabrics had to be developed, not only to protect the eyes and the respiratory system, but also the entire body. Mustard gas forced the opponent to don his protective clothing and his gasmask in particular for extremely long periods of time, for which they had not been designed. To continue fighting, equipment constantly had to be decontaminated.

Both factors combined – the prolonged

action and the restriction of individual freedom of movement – reduced the importance of casualty infliction in favour of attrition and area interdiction. The latter term describes very much the same concept found in the present-day American Airland Battle/FOFA doctrine. The former closely resembles the modern asymmetry-of-battlefield idea. In it, an attacker creates uncontaminated corridors, permitting him to advance without or with light protective clothing. He thus retains his high mobility, whereas all defenders have to wear cumbersome NBC suits. Thus we see that during the closing stages of World War I, modern battlefield tactics for chemical warfare emerged.

At the same time as these were being learned, a fundamental law governing chemical warfare manifested itself, although few were then aware of its existence. It states that if an opponent possesses adequate defensive means against a chemical attack and the capacity to retaliate in kind, the military significance of the chemical weapon is greatly reduced. All European countries that fought in World War I prepared themselves in either the defensive or offensive – or both – aspects of chemical warfare. On the eve of World War II a first 'balance of terror' was in effect over Europe. This law also explains why since World War I virtually all operations involving chemical agents have occurred in the Third World. Moreover, in many instances an attacker could justify his actions through a legal loophole in the 1925 Geneva Protocol, which only binds contracting parties between and among themselves.

In the colonies, this chemical balance of power did not exist. The major powers of the epoch had no qualms about using chemical agents against the indigenous population. For example, in 1919 the British War Office, realizing that mustard gas or any other agent would cause a high casualty rate amongst the Afghans, hesitated to employ these weapons. However, General Foulkes, in charge of the British chemical warfare effort after 1915, argued successfully:

On the question of morality . . . gas has been openly accepted as a recognised weapon for the future, and there is no longer any question of stealing an unfair advantage by taking an unsuspecting enemy unawares.

Apart from this, it has been pointed out that tribesmen are not bound by the Hague Convention and they do not conform to its most elementary rules . . .<sup>6</sup>

This quote illustrates how an international agreement is and can be eroded to suit the political needs of the moment. The Hague Declaration, signed in 1899, prohibits the use of projectiles to deliver war gases. In 1915 it was circumvented by Germany, who argued that in releasing chlorine from cylinders they did not violate the Declaration, as no projectiles were being used.<sup>7</sup> By 1918 between 20% and 30% of all artillery shells were filled with chemical agents. Chemicals had indeed become an established means of waging war. The new element in Foulkes' argument was that '*tribesmen are not bound by the Hague Convention*'. Put differently, treaties are signed between countries, and not peoples at a subnational level. This interpretation certainly added a new meaning to the phrase that the Declaration '*is only binding on the contracting powers in the case of a war between two or more of them*'. Once again we see that fundamental viewpoints on modern chemical warfare were developed during or in the wake of World War I. Today the treaty concerned is the Geneva Protocol, and the victims are the Kurds. Even the nation-state norm prevails today. Considering that the Paris Conference held in January was organized in the wake of Iraq's massive use of chemical agents, only abiding by that norm can explain why a Kurdish delegation was denied entrance.<sup>8</sup> In fact, the only difference between Afghanistan in the 1920s and Kurdistan today is that the Iraqi government has employed chemical agents against its own population.

Needless to say, the British chemical actions had a devastating effect upon the Afghan insurgents. In 1925 the French and the Spanish employed gases in Morocco in

very much the same way. Chemical agents were allocated a new role as instruments for policing rebellious territories. During the 1960s the United States was to move the boundaries of that type of warfare in Vietnam.

So, by 1925, the year of the Geneva Protocol, all agent categories – except for neurotoxins – and most aspects of modern chemical warfare were already well established. Moreover, the colonial campaigns reinforced the belief that wargases were a very potent weapon.

#### 4. *Myths Surrounding Chemical Weapons*

In view of the horrors of the chemical experience in the trenches and the apparent recognition by both Haber and Foulkes that gas alone would never bring a decisive victory, why did the nations not ban chemical weapons completely? Ever since World War I there has been a schism in views. The use of chemical weapons and in particular the effects of their use have led to a sheer mystic awe of this type of weapon, both out of fear and out of admiration.

First, apologists within the military-scientific community deflected any argument that no battle was decisively influenced by gas, arguing that the early means of releasing the agents were very crude and were highly dependent on the wind. In the later stages of World War I artillery was far from accurate. Moreover, some more potent chemicals, such as lewisite – a mustard gas variant – never saw action during the war. Time and time again such proponents saw their views proven right in the colonial campaigns. However, they usually failed to mention that in Afghanistan, Abyssinia, and much later in Vietnam and the Gulf War, the attacked possessed virtually no protective equipment, shelters or a retaliatory capacity.

Secondly, those apologists introduced the idea that chemicals were humane compared with classical weapons. Essentially, they countered emotional revulsion amongst the common people with the mathematical

rationale of statistics. For example, the British officially listed 180,983 of their soldiers as gassed, of whom no more than 6,062 or 3.3% were killed.<sup>9</sup> Such figures enabled them to present gas as a humane weapon, one that wounds rather than kills. That many casualties appeared to recover completely after a more or less prolonged span of time, reinforced their argument. At that time there were of course no statistics on long-term effects. The humane characteristic weighed heavily in discussions between the two wars. Only very recently declassified documents indicate that entire categories of victims were never entered into the official statistics.<sup>10</sup>

Politicians expressed their revulsion by including provisions concerning chemical warfare in the Versailles (1919) and Washington (1922) Treaties. France, however, failed to ratify the latter accord, for reasons not related to chemical warfare. An additional effort was made within the young League of Nations by accepting the Geneva Protocol. This was and still is hailed as one of the outstanding achievements of the disarmament thought. Difficulties, however, arose on the national level. Convinced of the military potency, the military-industrial lobbies used the time-gap between signing and ratification to press for amendments. On the one hand they argued that – in the words of the Executive of the American Chemical Society – *'the prohibition of chemical warfare meant the abandonment of humane methods for the old horrors of battle'*.<sup>11</sup> On the other they stressed their suspicions regarding the honesty of other countries, arguing there was no way of blocking another country's firm intent to develop an offensive chemical capability. Therefore, it was the duty of one's own government to prepare for the possibility of chemical warfare. Eventually, developments in Germany were to support their claims. Although the Weimar Republic became full party to the Treaty in 1929, it had restarted its production of warfare agents in the early 1920s and in 1923 it began its ultra-secret co-operation with the

Soviet Union in Tomka.<sup>12</sup> Influenced by such arguments, most countries thus ratified the treaty conditionally. Analogous to most signatories at the time, the Belgian government (still) considers itself only bound by the Protocol as regards states which have signed or ratified it, or may accede to it; and it considers itself no longer bound by it as soon as any enemy state or its allies fail to respect the prohibitions laid down in the Protocol. As such, the Geneva Protocol became reduced to a sort of no-first-use declaration. In the United States, the State Department even had to withdraw its submission for ratification.

In the years following its signing, the Protocol influenced most governments to limit scientific research into the offensive aspects of chemical warfare. However, in 1919 a governmental committee in London had noted *'that it is impossible to divorce the study of the defence against gas from the study of the use of gas as an offensive weapon, as the efficiency of the defence depends entirely on an accurate knowledge as to what progress is being or is likely to be made in the offensive use of this weapon'*.<sup>13</sup> All pretence of non-offensive research was dropped once the German research programme became known and Italy massively employed mustard gas in Abyssinia. The major powers openly embarked upon extensive research and production programmes.

### 5. Changing Perceptions

In the aftermath of World War I, two major opposing views on chemical weapons existed. On the one hand there was the military-scientific community that strongly advocated the future use of these weapons. They argued on the basis of casualty lists that chemicals are more humane than conventional weapons. And although no battle had been decisively influenced by chemical weapons, to them the advantages of using such weapons on a tactical level were evident. These views exerted a major influence on developments during the 1920s. Despite Article 171 of the Versailles Treaty forbidding Germany to research and

develop chemical weapons, their use by the Western powers in the Russian Civil War and in the colonies induced the Weimar government to initiate an ultra-secret chemical rearmament programme in January 1923.<sup>14</sup> Japan, too, which had had only a fledgling research programme in 1918, gave it major impetus on the basis of data obtained during disarmament negotiations for the Washington Treaty and the Geneva Protocol.<sup>15</sup> If Tokyo had had any doubts about the military usefulness of chemical weapons, the reluctance of the other allied powers to conclude a comprehensive treaty, and their subsequent reservations, must have convinced them. Following the United States example, Japan failed to ratify the Geneva Protocol.

On the other hand, public opinion and politicians shared an abhorrence for chemical weapons. Words reflecting these views were included in some international agreements. The United States even ratified the Washington Treaty on 29 March 1922. The

Protocol repeated the ideas of Article V of the Washington Treaty and expanded them to biological weapons. Time, however, was to blunt this emotional drive amongst politicians, who were under intense pressure from the chemical lobby.

Between the early 1920s and the present, the arguments pro and contra chemical weapons have essentially remained the same. However, the context in which they have been put forward has changed considerably. On the basis of a broad literature survey, we could summarize this discussion in a diagram which reflects the shift of perceptions within public opinion and the military-scientific community (see Fig. 1).<sup>16</sup>

In the wake of World War I, two completely opposing views existed between the public opinion and the military-scientific community. The former group could be situated near the lower left side of the third quadrant (1B). It believed chemical weapons to be inhumane and of little military use. The military-scientific community

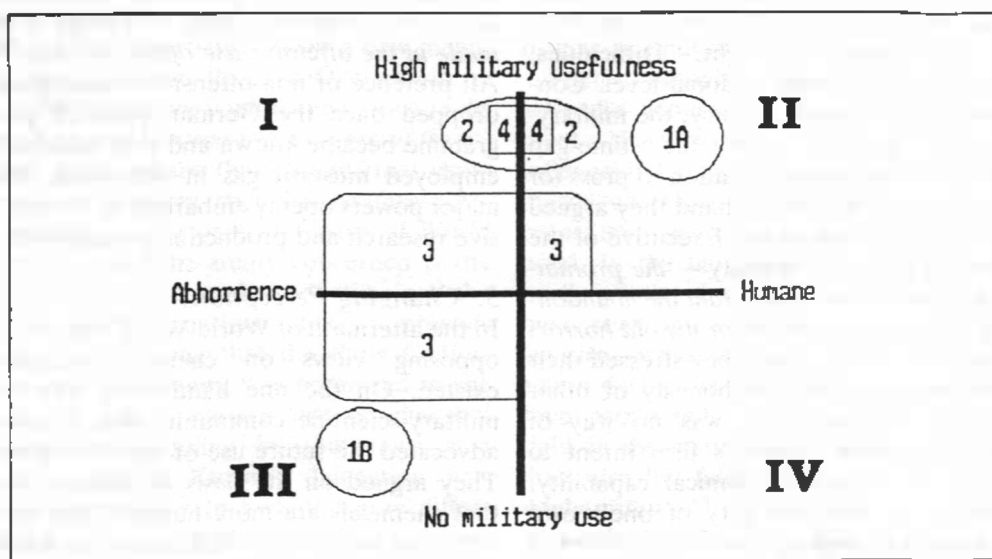


Fig. 1. Shift of Perceptions towards Chemical Weapons

- 1A: Post World War I: Military-scientific establishment
- 1B: Post World War I: Public opinion
- 2: World War II
- 3: Current NATO and Warsaw pact view
- 4: Current Third World view

is to be located in the upper right hand corner of the second quadrant (1A).

By the eve of World War II, the context of the chemical weapons debate had changed considerably. Italy had employed chemical weapons in Abyssinia, despite both countries being party to the Geneva Protocol. Their use by the Japanese in China was well documented in the press. Both cases helped to expose the League of Nations' failure to provide collective security and enforce international treaties. Furthermore, with the advent of the bomber as a strategic weapon, civilian populations could be held hostage by an enemy possessing chemical weapons. In this context (2 in the diagram), the military-scientific community saw its views confirmed and was able to convince politicians of the usefulness of these weapons – if not on the battlefield, then as a deterrent. That reduced the need to stress the 'humane' character. In the meantime, public opinion in Europe had also become more convinced about the military effectiveness of chemical weapons, and readily accepted the protective measures taken by their governments.

After World War II, the security debate became largely defined by nuclear weapons. The present view on chemical weapons, held by both the Warsaw Pact and NATO, can be represented by area 3 in the diagram. The sector in the first quadrant is explained by the fact that although the Soviets retain horrifying memories of World War I, they have developed extensive defensive programmes for both civilians and the military, as well as offensive strategies – most probably to break out of stalemates without having to take recourse to tactical nuclear weapons. It is also explained by the US rearmament programme, to counter not only the Soviet threat but also the terrorist threat against overseas installations by Third World groups or countries. The USA has also introduced chemical warfare in Airland Battle and FOFA as an area interdiction weapon instead of nuclear missiles. The small part in quadrant II accounts for the vision that nuclear weapons imply the

extinction of the human race, and that chemical weapons therefore offer a more humane alternative. The large area in the third quadrant covers public opinion, the political will for chemical disarmament and the view expressed by both sides that chemical weapons do not really have any pronounced military significance. The predominant current Third World view, and especially that of the Arab countries in the wake of the Gulf War, is one of high military usefulness (area 4). Morality is not discussed.<sup>17</sup> Chemical capability is often seen as a means to offset the nuclear or conventional dominance of an adversary.

The chemical scourge is today by and large a South–South problem, and not a North–South one. Differences of opinion between the North and the South concern views on disarmament. Many countries in the periphery of the East–West confrontation are reluctant to renounce chemical arms unless those in the Northern Hemisphere are willing to reduce their nuclear arsenals. To a very large extent the inability of both East and West to abandon the deterrence logic is to be blamed. When the chemical proliferation issue had not yet become so acute, the distrust between the two superpowers prevented the accomplishment of a bi- or multilateral accord or a strengthening of the Geneva Protocol. Today the United States and the Soviet Union have been concluding a series of bilateral accords to overcome some of their differences. The main question now concerns which countries outside the East–West sphere may adhere to the projected treaty. The failure of the world's leading nations to condemn Iraq for its use of chemical agents until after the Gulf War resembles in many respects the League of Nations' failure to provide for collective security. Many nations fear a repeat of the Treaty on the Non-Proliferation of Nuclear Weapons, wherein the possessing powers safeguarded their nuclear arsenals but only made a token effort to disarm, while other states were not allowed to acquire a military nuclear capability. To overcome this deadlock, some

have called for a strengthening of the Geneva Protocol because 115 countries are already party to it.<sup>18</sup> Others, however, criticize the Geneva Protocol for the pious platitudes of its wording and its failure to address such problems as monitoring, verifying and enforcing the agreement. All signatories were also allowed to develop further their offensive chemical capabilities.<sup>19</sup>

### 6. *Political Dilemmas*

Suggesting motives for people's positions and attitudes towards chemical weapons is difficult. First, emotional arguments in discussions play an important role. These may stem from memories of trench warfare or narratives about World War I experiences, or simply consist of ideological pleas against the Soviet Union, for example. Secondly, contrary to the rationally and mathematically founded arguments concerning conventional and nuclear weapons, with chemical weapons one can hardly avoid uncontrollable variables, such as the human reaction and climatological conditions. As a result, both advocates and opponents of chemical weapons can arrive at similar conclusions, or the same arguments may serve different views. For example, Edward Spiers, proponent of the US binary rearmament effort, states:

Chemical and biological weapons could be abolished because they were inherently unpredictable in their effects on the battlefield and so their universal elimination would not detract from any nation's security.<sup>20</sup>

In a similar vein, opponent Jorma K. Miettinen argues:

And there is no other area where the military risks would be smaller and the political gains larger than in disarming the chemical warfare machine.<sup>21</sup>

Spiers maintains that the West must first equal Soviet capabilities in both quantitative and qualitative aspects before any significant disarmament results can be achieved.

Miettinen, on the other hand, notes the deficiencies of the chemical capabilities of both NATO and the Warsaw Pact and their limited military value. It thus appears that threat appraisal – i.e. an ideological argument, rather than empirical fact – accounts for the fundamental differences in opinion.

However, is it not a luxury for the North, not having been the victim of chemical warfare for over 70 years, to debate whether it is appropriate to negotiate from strength or to disarm unilaterally? Or to fill learned volumes on the structure of an international agency to monitor chemical weapons destruction? Or to discuss for years on end what the definition of a chemical agent should be? Or what type of mice should be used to establish the median lethal value for subcutaneous injection of nerve agents? This is not something one can explain to tens of thousands of Kurds or Iranians. What they want to know is why the international community kept silent until the Gulf War was over. To them, the 1925 Geneva Protocol would have been more than sufficient, if only it had been enforced by those with the prestige to do so.

For one thing, the fundamental law underlying chemical warfare – namely, if you want to avoid chemical warfare prepare yourself for it – has largely lost its impact in the East–West context. Sufficient parity exists between NATO and the Warsaw Pact for much of the chemical threat to be neutralized. As a result, the number of scenarios in which chemicals could be used in Europe is rather limited.<sup>22</sup> Both superpowers also realize that such scenarios cannot unfold in a strategic vacuum. The attacker must reckon with possible escalatory effects to the nuclear level or other forms of retaliation. The threshold for chemical warfare is not very high, and it could – in view of NATO's option of nuclear retaliation in response to a chemical attack<sup>23</sup> – possibly lead to nuclear war at a much earlier stage. On the other hand, deploying a retaliatory capacity for tactical reasons could keep NATO's nuclear threshold sufficiently high. However, over the past two



years these scenarios have become increasingly unlikely as a result both of the INF Treaty, which eliminates many of the missiles that also have a chemical capacity, and of the growing trust between East and West, which decreases the likelihood of war in general. Europe seems set for complete chemical disarmament.

As a result, the focus of the chemical threat is once again shifted to the *Third World*. Very often there exists no degree of parity, so the balance of power shifts drastically in favour of the possessor. Usually the attacked even lacks the most elementary protective equipment. Under such circumstances, chemical weapons are no longer ineffective. The possessor might decide that he could achieve a quick military victory, or he might blackmail a neighbour into concessions. The lack of concern shown by world opinion during the Gulf War only encourages such an evolution. At present many Third World countries are engaged in a frantic search for retaliatory capacity. The Gulf War, from which Iraq dubiously emerged as victor, gave them the impression that chemical weapons are once again a very effective weapon. Unlike in the North, there is little room or time for theoretical considerations. Here, only a global ban offers the best solution. The attitude of many countries towards the projected chemical weapons convention, however, is all but ambivalent. Failure to conclude such a treaty could well lift the taboo from chemical weapons, thus opening the way for conventionalization. Even so, the very technical approach and the difficulties in reaching the smallest of accords at the current chemical weapons talks must convince many governments of the effectiveness of these weapons, in the same way it motivated Japan's leaders not to ratify the Geneva Protocol in the late 1920s. Furthermore, to many Third World countries, progress at the Geneva Conference is too slow. A chemical deterrent offers more security in the short term. The ready availability of chemically capable, high technology weapons such as ballistic missiles and

advanced long-range bombers gives these countries a strategic power projection.

Above we suggested that the context in which chemical weapons are to be placed and the political intent behind them is far more important than the weapon as such. We have also argued that arguments pro and contra have essentially remained unchanged, irrespective of the context. Diachronic analyses of chemical warfare present little more than an enumeration of dates, facts and views. Little, if any, literature offers a comprehensive analysis of the chemical threat within the context of present-day international relations, or in relation to developments in other armament and disarmament fields. Peace research and strategic studies alike have focused on specific aspects of and specific solutions to the chemical problem, thus fixing most of the attention on the weapon as such. Chemical disarmament has become an aim in itself, submerged in technical intricacies that few can grasp. However, we may wonder whether this stress on technical solutions is not becoming a way out, an excuse to compensate for lack of political will.

Recently, President Bush has displayed the most ambiguous of positions. Although he declared before the United Nations on 26 September 1989 that the USA is ready to take immediate steps to eliminate chemical weapons once a treaty has been signed, three weeks later it emerged that he decided after 'an unusually secretive policy review'<sup>24</sup> to continue production of binary munitions even after a new global treaty authorizing their destruction has begun to take effect. Ever since he tabled the US treaty draft in 1984 and had to cast the decisive vote in favour of the binary programme in the US Senate, President Bush has been unable to throw his weight behind disarmament and side-track the military. It looks like a rerun of the Senate debates to ratify the Geneva Protocol in the late 1920s.

Chemical issues appear subordinate to other policy considerations, even at an international conference such as the one in Paris. No country was to be accused of using

chemical weapons: not even Iraq. And so the most recent victims of chemical warfare, the Kurds, were not allowed to testify. Such a stance can only increase the feeling that achieving an international treaty has become an aim in itself. Finally, however despicable the South African regime may be, the walk-out when Foreign Minister Botha took the stand proves that other political considerations always take priority over the chemical issue. The consequence of such behaviour may be that Pretoria's concerns are not sufficiently addressed in the projected treaty and that it will not become party. As a result, a whole area may decide it is too risky to adhere to the treaty.

However, a small country such as Belgium, which still has a living memory of chemical warfare, has also been unable to develop a constructive policy. Even if we discard NATO constraints on Belgian security policy, the present government has missed at least three opportunities to demonstrate clearly its commitment to chemical disarmament in the last two years.<sup>25</sup> The governmental declaration of 2 May 1988 pledges that the present government will continue its efforts at the Geneva Disarmament Conference and will conditionally support a comprehensive ban. It will further promote initiatives to have the treaty first implemented in Europe.<sup>26</sup> However, the Belgian government has made its policy contingent on the outcome of the Geneva Disarmament Conference. In the meantime, there are no other political commitments; indeed, failure of the Geneva negotiations is not contemplated.

This lack of a broader approach to the chemical problem became evident in January 1989. During the Rabta crisis – as Belgium represents US interests in Libya – both Egypt and Libya requested an audience with Belgium's former Foreign Minister Tindemans at the Paris Conference. During what NATO considered a major crisis, Tindemans could not attend in Paris because he had to cast his vote in Parliament. This occurred when the US wanted to intervene militarily. By the end of that

month, it became clear Belgian firms were involved in shipments of precursors and technology from Germany to the chemical plant in Libya. Belgian Minister for Economic Affairs Claes announced he would expand the basic list of seven precursors for which governmental export licence is needed. And yet, nothing has been done so far. The gaping loophole in Belgian transit rules for foreign arms shipments remains, despite the damning conclusions drawn by a parliamentary investigative committee.

These are three examples, where – in our view – modest policy initiatives by an individual government could greatly reinforce the spirit of the Geneva Protocol and effectively promote the provisions in the projected treaty.

### *7. Concluding Remarks*

Peace research will have an important task in defining the precise context in which chemical weapons are to be placed. At present, conventional and mostly nuclear disarmament is no longer a far distant illusion. This may pose new problems in the chemical disarmament debate. We in the North regard the issue in a highly ideological way, often using the very same instruments that were developed to analyse nuclear strategies. It is therefore not inconceivable that we overestimate or underestimate the chemical scourge. A typical example of overestimation is the assertion that chemical weapons are easy to make – so to speak at home in the bathroom – as one journalist put it after visiting Halabja. This view is, of course, correct if nuclear weapons are taken as point of reference: but it does not consider the technology needed to develop and produce militarily relevant quantities. Also the view that the deployment of chemical weapons increases the probability of war is derived from nuclear thinking. The young discipline of risk analysis has shown that a nuclear war could be initiated independently of the policymakers' will, as a result of technical deficiencies and ever shorter reaction times. By contrast, because of its nature a chemical

shell or bomb cannot accidentally unleash a war. Decision procedures and the human command chain are little dependent on automated procedures with chemical weapons.

We must therefore realize that however we talk about nuclear armament or disarmament, we are talking about avoiding war. These are forbidden weapons, never to be used, with a very high political function. In talking about chemical weapons, we are talking about avoiding a specific type of warfare – never about avoiding war. Chemical weapons have little political function and can be used, as history has proven. And, as President Bush will inevitably learn, there is no possible compromise between both aspects of the chemical paradox. We must make major decisions based on nothing more than assumptions and against strategic rationale. What is at issue is the political will of individual governments and the international community.

#### NOTES AND REFERENCES

1. K. B. Olson, 'The Proposed Chemical Weapons Convention: An Industry Perspective', *Chemical Weapons Convention Bulletin*, no. 2, Autumn 1988, p. 1.
2. D. Dickson, 'A French "Joker in the Pack"', *Science*, 1 April 1988, p. 23. However, on 29 September 1988 President Mitterand announced before the United Nations that France had dropped this proposal. He reaffirmed this stand during his speech at the Paris Conference on 7 January 1989.
3. As reported in *Moscow News*, no. 17, 23 April 1989. The military authorities refused to disclose the precise agents used, which hampered medical treatment. In July, ten victims were sent to FRG. Medical researchers, however, were not able to establish what lethal agent was used in addition to CS and CN. They suggested *Green Cross* (*Süddeutsche Zeitung*, 21 July 1989, p. 6; *Die Welt*, 27 July 1989, p. 16).  
Earlier reports had mentioned the use of an atropine-like nerve agent (B. Keller: 'Izvestia Says Toxic Gas Felled Georgians', *International Herald Tribune*, 21 April 1989, p. 2). In the following weeks, other substances, mostly related to incapacitating agents, were named. According to an investi-
4. Cf. J. Douglas Jr & N. C. Livingstone, 'CBW: The Poor Man's Atomic Bomb', *National Security Paper*, no. 1, Institute for Foreign Policy Analysis, Cambridge, Mass., February 1984. J. Douglas Jr & N. C. Livingstone, 'America the Vulnerable. The Threat of Chemical and Biological Warfare' (Lexington, Mass.: Lexington Books, 1987), 204 pp.
5. In fact the first gas attack occurred on 27 October 1914, when German soldiers fired 3,000 shells with shrapnel and eye and nose irritants. The effects were so minimal that the Allies only learned about the incident after the war. On 31 January 1915 the Germans employed an improved tear gas in Poland. The effects, however, were neutralized by the cold (L. Hart, *History of the First World War* [London: Pan Books, 1972], p. 144). In March 1915 it was used for the first time on the Western front near Newport in Belgium (R. Hanslian & Fr. Bergendorff, *Der Chemische Krieg* [Berlin: S. Mittler & Sohn, 1925], p. 10).
6. Quoted from the *Foulkes Papers* in R. Harris & J. Paxman, *A Higher Form of Killing* (Triad/Granada, 1982), p. 43.
7. Some reports suggest the French had used tear gas grenades at an even earlier date. Hanslian & Bergendorff (op. cit., p. 10) do not mention this fact. In *The Poisonous Cloud* (Oxford: Clarendon Press, 1986), p. 23, L. F. Haber deduces from a fresh order placed in November 1914 that the French had used up their small stocks of tear gas. He adds that on a later occasion the rifle-fired grenade, which only contained  $\pm 19$  cc of tear gas, proved so inaccurate that in any case its effect would have passed unnoticed. Although the French were preparing for large-scale use, he questions the claim by his father, Fritz Haber, that the French employed tear gas in the Argonne in March 1915, thus undermining the German excuse of retaliation for their April attack at Ypres.
8. Abiding by the nation-state norm makes the

gative report by the Georgian Supreme Soviet, the decision to suppress the demonstration was taken in the Politburo by former member Chebrikov and current defence minister Yazov. The orders to employ chemical agents were given by General Rodionov, who was dismissed last summer (D. Remnick: 'Kremlin Linked to Georgian Crackdown', *International Herald Tribune*, 12 October 1989, p. 5).

- solemn declaration of the Paris Conference to assist the victims of chemical warfare – in this case the Kurds – sound very hollow. Former Belgian Foreign Minister Tindemans replied to a written request by an MP in November 1988 that the plight of the Kurds could not be separated from the principle of non-interference in the internal affairs of other states laid down in the Charter of the United Nations.
9. R. Harris & J. Paxman, *op. cit.*, p. 34.
  10. *Ibid.*
  11. R. Harris & J. Paxman, *op. cit.*, p. 45.
  12. H. G. Brauch & R. D. Müller, Hrsg., *Chemische Kriegführung – Chemische Abrüstung. Dokumente und Kommentare* (Berlin: Berlin Verlag, 1985), pp. 27–38.
  13. *Foulkes Papers*. Quoted in R. Harris and J. Paxman, *op. cit.*, p. 42.
  14. Cf. documents published by H. G. Brauch & R. D. Müller, Hrsg., *op. cit.*, p. 94 and following.
  15. Y. Tanaka, 'Poison Gas: The Story Japan Would Like to Forget', *Bulletin of the Atomic Scientists*, October 1988, pp. 10–19.
  16. This figure is a tentative diagram. We have not yet included a unit of measure nor defined other parameters that might influence these perceptions. Further development of this hypothesis will be part of a research project which will start at the Free University of Brussels in 1990.
  17. It has been claimed that Iran refused to employ chemical weapons in the Gulf War on the basis of moral rules in the Koran. In an interview with the author, an official of the Iranian Embassy in Brussels dismissed this claim.
  18. C. C. Flowerree, E. Harris & J. Leonard, 'Chemical Arms Control After the Paris Conference', *Arms Control Today*, vol. 19, no. 1, January/February 1989, p. 4; J. P. Perry Robinson, 'Information Processes and the Projected Chemical Weapons Convention'. Paper presented at 'The Projected Chemical Weapons Convention', London, September 1988; A. Westing, 'Towards Eliminating the Scourge of Chemical War', *Bulletin of Peace Proposals*, vol. 16, no. 2, June 1985, pp. 117–120; A. Westing, 'The Geneva Protocol of 1925: Towards a Full Renunciation of Chemical Warfare', *Transnational Perspectives*, vol. 15, no. 2, Geneva 1989, pp. 21–22.
  19. E. M. Spiers, *Chemical Warfare* (London: Macmillan, 1986), p. 43.
  20. E. M. Spiers, *op. cit.*, p. 176.
  21. J. K. Miettinen, 'Chemical Disarmament and Arms Control', *Bulletin of Peace Proposals*, vol. 14, no. 3, September 1983, p. 251.
  22. J. K. Miettinen, *op. cit.*; F. J. Kroesen et al., 'Chemical Warfare Study: Summary Report', *IDA-Paper P-1820*, Institute for Defense Analysis, Alexandria, February 1985. 15 pp.
  23. NATO Military Committee document MC 14/3. Such a scenario was enacted during the NATO Wintex/Cimex 1989 exercise.
  24. R. J. Smith, 'U.S. to Keep Making Poison Gas, Officials Report', *International Herald Tribune*, 10 October 1989, pp. 1+4.
  25. J. P. Zanders, 'Belgium, NATO and Chemical Weapons (Part 1)'. *Vredesonderzoek no. 4*, Free University of Brussels. To be published in December 1989; NATO constraints affect issues such as chemical weapons free zones or becoming full party to the Geneva Protocol.
  26. This, of course, is an awkward mix-up of the CWC negotiations in Geneva and the idea of a chemical weapons free zone in Europe. Nevertheless, it underlines our view that chemical disarmament has become a subject for all but specialists.