

**Dangerous  
Ambiguities:  
Regulation of incapacitants  
and riot control agents  
under the Chemical  
Weapons Convention**

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# Chemical Weapons Convention

- The Chemical Weapons Convention has proven to be an important defence against the horrors of chemical warfare, vitally important for protecting both military personnel and civilians alike.
- Its core obligations are powerfully set out under Article 1, namely that States will never **under any circumstances** develop, stockpile, transfer or use chemical weapons.
- However, certain ambiguities and limitations in the CWC control regime exist regarding regulation of riot control agents (RCAs) and incapacitants. If not addressed, they could endanger the stability of the Convention.

# Chemical Weapons Convention

- **Article 1:**
- Each State Party to this Convention undertakes **never under any circumstances:**
- (a) To **develop, produce, otherwise acquire, stockpile or retain** chemical weapons, or **transfer, directly or indirectly**, chemical weapons to anyone;
- (b) To **use** chemical weapons;
- (c) To engage in **any** military preparations to use chemical weapons;
- (d) To **assist, encourage or induce, in any way**, anyone to engage in any activity prohibited to a State Party under this Convention. **[Emphasis added].**

# CWC: Scope of coverage

- The CWC is comprehensive in the toxic chemicals it regulates.
- The definition of “toxic chemicals” under Article 2.2 includes chemicals that cause “temporary incapacitation”.
- Under the Convention, the use of such “toxic chemicals” would be forbidden unless employed for “purposes not prohibited” and as long as the “types and quantities” are consistent with such purposes.
- Among the “purposes not prohibited” is: “law enforcement including domestic riot control”.

# Chemical weapons convention

- **Scope of coverage**
- Article 2.2 defines a “**toxic chemical**” as:
- “...any chemical, regardless of its origin or method of production, which, through chemical action on life processes, can cause death, **temporary incapacitation** or permanent harm to humans or animals.”
- Article 2.1(a), states that **chemical weapons** include all “toxic chemicals and their precursors, **except where intended for purposes not prohibited, as long as the types and quantities are consistent with such purposes.**”
- Under “**purposes not prohibited**” Article 2.9 includes:
- (c) “Military purposes not connected with the use of chemical weapons and not dependent on the use of the toxic properties of chemicals as a **method of warfare**”
- (d) “**Law enforcement** including domestic riot control purposes,”  
**[Emphasis added].**

# Limitations of the CWC control regime with regard to regulation of incapacitants and RCAs

- **Weaknesses in CWC textual architecture**
  - **Certain Articles detailing States' obligations are ambiguous.** Exacerbated by lack of definition of certain key terms e.g. law enforcement, method of warfare, temporary incapacitation.
  - Ambiguities have not been addressed by policy making organs – potentially **allowing divergent interpretation by States Parties**
- **Severe limitations in declaration and transparency mechanisms**
- **Failure of States Parties to effectively utilise multilateral consultation and investigation mechanisms in response to possible breaches.**
- **Failure of oversight bodies/policy making organs – particularly Executive Council and Conference of States Parties - to respond to possible breaches.**

## Regulation of Riot Control Agents (RCAs)

- RCAs defined under Convention as: ***“Any chemical not listed in a Schedule, which can produce rapidly in humans sensory irritation or disabling physical effects which disappear within a short time following termination of exposure.”*** Article 2.7
- Convention expressly prohibits the use of ***“riot control agents as a method of warfare”***. Article 1.5
- Convention permits use of toxic chemicals for ***“Law enforcement including domestic riot control purposes”***. Article 2.9(d)

# Purpose not prohibited: “Law enforcement”

- The Convention permits use of riot control agents for “**Law enforcement including domestic riot control purposes**” [Article 2.9(d)] – *but does not define the nature and scope of such activities.*
- RCAs when used by law enforcement officials in accordance with the manufacturers’ instructions and in line with international human rights standards are an important alternative to other applications of force more likely to result in injury or death i.e. firearms.
- They are legitimately used to disperse violent crowds/mobs, or to incapacitate violent individuals.
- But they are also open to misuse.



# Legitimate law enforcement?

- A non-exhaustive survey of documentation from UN human rights bodies and respected international non-governmental human rights organisations reveals reported misuse of RCAs by law enforcement officials in 35 countries from 2004-2008. RCAs have been used:
  - to suppress the rights to freedom of expression and assembly,
  - in the excessive use of force
  - in conjunction with firearms as a force multiplier
  - in enclosed spaces
  - for ill-treatment and torture
- In some instances misuse of RCAs, particularly in enclosed spaces, has resulted in serious injury or death. As well as potentially violating international human rights standards or agreements, some of these actions appear to be inconsistent with the “types and quantities” provision of Article 2.1 and the “law enforcement” provision of Article 2.9. However to date no cases of such misuse have been raised by States Parties as matters of concern in the context of the CWC. Nor has the nature and scope of “law enforcement” under the Convention been addressed by any policy making organ.

# Prohibited purpose: “method of warfare”

- The CWC expressly prohibits the use of “*riot control agents as a method of warfare*”. *Article 1.5*
- However “method of warfare” has not been defined under the Convention and the Convention's policy making organs have not issued an interpretation of Article 1.5. Whilst the majority of States uphold a comprehensive interpretation of this prohibition, one State Party maintains a long-held position that RCAs can be legitimately used for a range of non-offensive actions, by military forces present in certain areas of armed conflict.
- Furthermore, because “method of warfare” and “law enforcement” have not been described and the line between them has not been drawn, there are different interpretations of what activities lying along this spectrum are permitted. Consequently one State Party, at least, appears to have permitted the use of RCAs by armed forces in counter-insurgency operations.
- **If not addressed, such differences in interpretation can have a corrosive effect on the stability of the regime.**

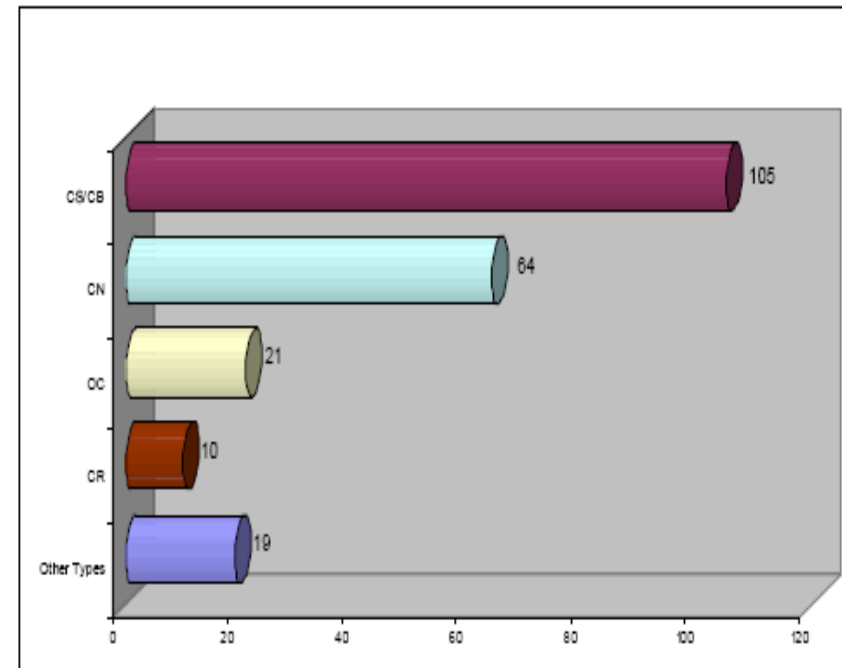
# Concerns regarding reporting and transparency of RCA holdings

- Under Article 3.1.e, States Parties are required to submit an initial declaration of all chemicals that are kept for riot control purposes.
- However, States Parties are not specifically requested to provide any details of:
  - quantities of RCAs held;
  - means of delivery – are they in hand-thrown cannisters or sprays suitable for law enforcement or are they in mortar shells, artillery projectiles or cluster bombs intended for armed conflict?
  - Who holds RCA stockpiles – military or police agencies?
- Without such information the confidence-building utility of this system for alerting States Parties to militarily significant levels of RCAs appears to be extremely limited.

# Limitations in RCA reporting and transparency

Number of States Parties that had declared riot control agents, by type of agent, as at 31<sup>st</sup> December 2008

- Public transparency in this area is minimal. The only information civil society can obtain comes from the OPCW Annual Implementation Report which includes the chart opposite. Although it shows the total number of countries holding each particular type of RCA – there is no information detailing which country holds which RCA.



# Proposals for CWC States Parties: developing effective regulation of riot control agents

- **CWC related activities**
- **Initiate intergovernmental consultation mechanism:** to address regulation of RCAs under the CWC– feeding into deliberations for 3rd CWC Review Conference. [As well as addressing the issues previously raised, this should also explore limitations on the development, transfer and use of munitions and delivery devices for RCAs.]
- **Utilise existing CWC consultation, investigation and fact-finding mechanisms where reports of possible breaches of Convention come to light:** Either bi-lateral consultation between States Parties or if this fails, under Article 9 of the Convention.
- **Promote good practice in reporting and transparency:** As well as full and timely RCA declarations, States Parties should provide information on quantities of RCA held, associated means of delivery and authorities holding and permitted to use RCAs.
- **Parallel activities**
- **Explore regulation of RCAs under relevant international law:** particularly Geneva Protocol, international human rights law and international humanitarian law (i.e. Geneva Conventions and Additional Protocols).

# Incapacitating chemical and biochemical agents (incapacitants)

- Although the definition of “toxic chemicals” includes those that cause “temporary incapacitation”, neither “temporary incapacitation” nor “incapacitants” are defined under the CWC. Furthermore, the status of incapacitants and their regulation under the Convention is contested.

As a working description incapacitants can be considered as: *substances whose chemical action on specific biochemical processes and physiological systems, especially those affecting the higher regulatory activity of the central nervous system, produce a disabling condition (e.g. can cause incapacitation or disorientation, incoherence, hallucination, sedation, loss of consciousness) or at higher concentrations, death.* (Adapted from Pearson, A., Chevrier, M. and Wheelis, M. (eds) (2007) *Incapacitating Biochemical Weapons*, Lanham: Lexington Books).

# Biochemical threat spectrum

Classical CW	Industrial Pharmaceutical Chemicals	Bioregulators Peptides	Toxins	Genetically Modified BW	Traditional BW
Cyanide Phosgene Mustard Nerve Agents	Fentanyl Carfentanil Remifentanil Etorphine Dexmedetomidine Midazolam	Substance P Neurokinin A	Saxitoxin Ricin Botulinum Toxin	Modified/ Tailored Bacteria Viruses	Bacteria Viruses Rickettsia  Anthrax Plague Tularemia
Biological and Toxin Weapons Convention					
Chemical Weapons Convention					
Pcison					
Infect					

- Potential candidate incapacitant agents for weaponisation could include certain pharmaceutical chemicals, bioregulators and toxins. All three of these chemical classes are covered under the CWC. In addition, bioregulators and toxins would also fall within the scope of the BWC.
- [Biochemical threat spectrum chart adapted from: Pearson, G. (2002) Relevant Scientific And Technological Developments For The First CWC Review Conference, University of Bradford.].

# Potential threats of development/use of incapacitants

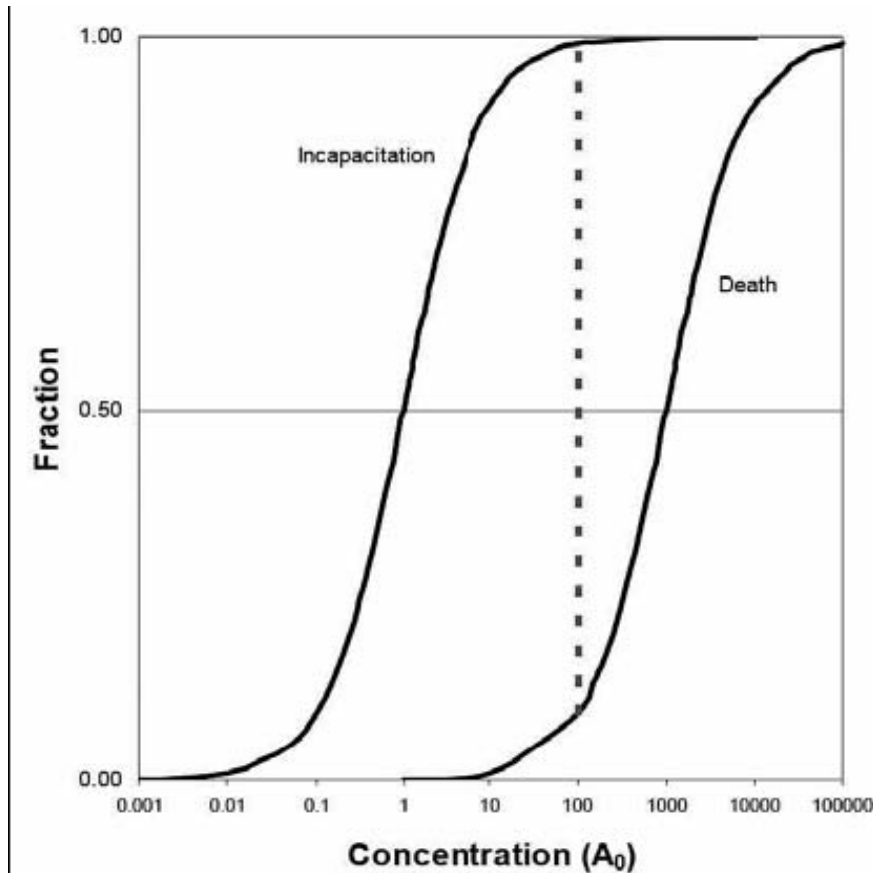
Advocates of incapacitants have promoted their development and use in certain law enforcement scenarios (such as hostage taking situations) where there is a need to rapidly and completely incapacitate single or a group of individuals without causing death or permanent disability. Incapacitants have also been raised as a possible tool in certain military operations, especially where combatants and non-combatants are mixed.

However, a range of civil society organisations – including medical and scientific bodies – as well as certain CWC States Parties have highlighted potential dangers of development and use of incapacitants, including:

- **Dose-response problem**
- **Erosion of norm against weaponization of toxicity**- as annuciated in the Geneva Protocol and the CWC
- **Proliferation and 'legitimization' by States** - with the increased danger of use in armed conflict and misuse against their own citizens
- **Proliferation to, and misuse by, non-state actors** - including terrorists and criminal gangs, but also private military and security companies which are increasingly employed by States without adequate regulation
- **Use as a lethal force multiplier** - not as an alternative to lethal force, but as a means to make lethal force more deadly.
- **Facilitation of torture and other human rights violations** - not just against individuals but potentially aiding repression of groups by, for example, allowing the capture, en masse, of large numbers of people participating in peaceful demonstrations.



# Dose-response problem



Klotz L, Furmanski M & Wheelis M (2003)  
*Beware the siren's song:  
why 'non-lethal' incapacitating chemical agents are lethal.*  
Federation of American Scientists

- *“The agent whereby people could be incapacitated without risk of death in a tactical situation does not exist and is unlikely to in the foreseeable future. **In such a situation, it is and will continue to be almost impossible to deliver the right agent to the right people in the right dose without exposing the wrong people, or delivering the wrong dose.**”*
- British Medical Association, *The use of drugs as weapons: The concerns and responsibilities of healthcare professionals*, London: May 2007

# Use of incapacitant by Russian Federation

- Concerns about incapacitants were heightened following the Moscow theatre siege. In October 2002, Russian Federation security forces employed a still unidentified incapacitant in their attempt to free over 800 hostages held by a Chechen armed group carrying explosives. Although the majority of the hostages were saved, over 120 died as a result of the incapacitant and delays in receiving appropriate medical care, many more suffer long term health effects.
- Although the First CWC Review Conference was held just six months later, the CWC States Parties did not then, and have still not, adequately discussed the implications of this event or addressed the status and regulation of incapacitants under the Convention.
- **In contrast, analysis of open source information indicates that following the Moscow siege a number of States Parties appear to have initiated or continued research relating to incapacitants.**

# State proliferation and 'legitimization'

- *“The events in Moscow have opened up the potential for this area of research (i.e. incapacitating/immobilizing chemicals) to be explored in much greater depth. It would not be surprising if a number of countries were conducting more detailed and renewed research as a result.”* **Stanley, T. Director of the Anaesthesiology Research Laboratories at the University of Utah, 2004**
- *“There is an increasing interest among some governments to adopt a more flexible interpretation of the CWC rules on the use of incapacitating chemical weapons, even as a method of warfare, in order to use them in diverse situations. Such an interpretation, in the view of the Commission, would constitute a dangerous erosion on the fundamental ban on chemical weapons that the authors of the Convention intended.”* **Weapons of Mass Destruction Commission, 2006**

# Assessing future threats

- Disquiet about unregulated State research into incapacitants is exacerbated by the extremely rapid advances in relevant science and technology, particularly genomics, synthetic biology, medical pharmacology and neuroscience, which could be utilised in State weapons programmes.
- *“In addition to drugs causing calming or unconsciousness, compounds on the horizon with potential as military agents include noradrenaline antagonists such as propranolol to cause selective memory loss, cholecystinin B agonists to cause panic attacks, and substance P agonists to induce depression. The question thus is not so much when these capabilities will arise — because arise they certainly will — but what purposes will those with such capabilities pursue.”* Wheelis, M. and Dando, M. **Neurobiology: A case study of the imminent militarization of biology.** International Review of the Red Cross, September 2005.
- *“Using existing drugs as weapons means knowingly moving towards the top of a ‘slippery slope’ at the bottom of which is the spectre of ‘militarization’ of biology, this could include intentional manipulation of peoples’ emotions, memories, immune responses or even fertility”* . **British Medical Association, 2007.**

# Assessing future threats

## *National Research Council, 2008, Emerging Cognitive Neuroscience and Related Techniques:*

- *“**existing pharmacological agents** could be used in a nefarious way. An example would be currently used agents, such as alpha blockers, that would work quickly to drop blood pressure if delivered in high doses. In addition, anticholinergic agents could cause molecular changes that lead to temporary blindness.”*
- *“**new nanotechnologies** have allowed molecular conjugation or encapsulation that may permit unprecedented access [of drugs] to the brain”*
- **Gas phase techniques/nanotechnologies:** *“pharmacological agents are not used as weapons of mass effect, because their large-scale deployment is impractical” as it is “currently impossible to get an effective dose to a combatant.” However the NRC report states that “**technologies that could be available in the next 20 years would allow dispersal of agents in delivery vehicles that would be analogous to a pharmacological cluster bomb or a land mine.**”*

# Proposals for CWC States Parties: developing effective regulation of incapacitants

## CWC related activities

**Moratorium on weapons related research and development of incapacitants** until status of incapacitants under the CWC has been resolved. [Such a moratorium is not intended to cover research, development or use of agents legitimately employed for medical or veterinary purposes, but solely those intended for use as weapons.]

- **Independent technical studies of incapacitants** – feeding into deliberations for 3<sup>rd</sup> CWC Review Conference.

- **Initiate intergovernmental consultation mechanism** to address status and regulation of incapacitants under the CWC– feeding into deliberations for 3<sup>rd</sup> CWC Review Conference.

- **Utilise existing CWC consultation, investigation and fact-finding mechanisms where reports of possible breaches of the Convention come to light:** Either bi-lateral consultation or if this fails, under Article 9 of the Convention.

## Parallel activities

- **Explore regulation of incapacitants under relevant international law including:** BWC, Geneva Protocol, Single Convention on Narcotic Drugs, UN Convention on Psychotropic Substances, international human rights law and international humanitarian law. Such analysis would help to establish States' direct obligations under these treaties, but also should inform State interpretation of relevant Articles of the CWC.

## Proposals for CWC States Parties: resolving ambiguities in the CWC

- Seek to define the terms “**law enforcement**” and “**method of warfare**” as used in the CWC, explore the range of activities contained within each term and determine where activities such as counter-insurgency operations should lie;
- Explore how the use of chemical agents by non-governmental entities such as **private military companies and private security companies** should be regulated under the CWC;
- Identify which chemicals should be considered as toxic chemicals in the sense of having a “chemical action on life processes that can cause **temporary incapacitation** in human beings or other animals”.

# Bradford Non-lethal Weapons Research Project (BNLWRP)



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