Sea-Dumped Chemical Weapons

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Summary

The dumping of Chemical Weapons in the seabed was considered a safe option by these states and a major part of it may be due to cutting corners in proper disposal and an idealistic overconfidence in the absorbability of the oceans as far as these toxic components were concerned. At the same time, there was a lack of knowledge and experience to argue against sea-dumping as the best approach for getting rid of these substances.

An Overview

During the inter-war years, United States and other warring nations of the 20th Century realised that they were in possession of vast stockpiles of chemical weapons. Subsequently, after the World War II, the idea of banning their production, use and threat of use gathered unprecedented momentum. These weapons were needed to be banished from the battlefield and equally important was the complete eradication of their stockpile and threat of use. Through general global consent, the major powers began the indiscriminate dumping of chemical weapons (CW) in the oceans except in the Antarctic. The dumping of Chemical Weapons in the seabed was considered a safe option by these states and a major part of it may be due to cutting corners in proper disposal and an idealistic overconfidence in the absorbability of the oceans as far as these toxic components were concerned. At the same time, there was a lack of knowledge and experience to argue against sea-dumping as the best approach for getting rid of these substances. In any case, right from the outset, technical complexity and inadequate knowledge in related fields of safe disassembling meant that dumping at sea was seen as the preferred option when compared to dumping on land. Furthermore, the peculiar nature of the Cold War, where national security and defence not only were given tremendous leeway in terms of secrecy and a lack of transparency in oversight of military operations, there was a perceptible agreement with policies that promised to minimises perceived risks and vulnerabilities.

It has to be noted that off the bat, the common driver for policy makers in general was to avoid the destructive debacle of the

first and second World Wars, the preference for limited military operations seen in the Korean War, and other minor wars especially in Asia. As a result, a lot of the information regarding operations relating to weapons of mass destruction would have been extremely controlled. Lastly, nuclear weapons had entered the picture in power projection and were fast becoming the spine of deterrence and the perception of threat. Chemical and biological weapons seemed to have taken a back seat in absolute political importance, and attention to its potential for harm could not override its deterrence value.

By the close of the Cold War and as the world moved to revamp development and economic prosperity, a lot more attention has been returned to libertarian rights, especially in form of the idea of human security. Being all encompassing, human security does focus on the interests of the individuals considering not only national security, but also environmental security. This also has had a profound impact on the environmental impact of unprocessed dumping of weapons as "... it was only realized later that this materiel had not remained inert on the seabed and was found floating or washed ashore. Cases of encounters with sea-dumped CW materiel intensified public fear of damage to marine and human life, as well as to coastal environments. These fears led to an international effort to legally end the practice of sea-dumping CW materiel".[1]

As the attention from linear strategic state relations shifts towards more liberal lines and the opening up of borders and intensified globalisation, mush of the popular strategic considerations and of civil societies, shifted towards environmentalism, and later on to ecological security (or the security of the environment for its own sake), means that of strategic individual interests, the environment is key to security and sustainable health.

Research on the eradication of chemical weapons dumped in the sea, continues to focus on minimising the damage and highlights the seriousness of the issue. There is also a perception that it is a shared problem and no more a national issue; in an address to the Swiss Parliament on 12 December 2000, the former Soviet President, Mikhail Gorbachev said, "We had all made the mistake years ago of dumping thousands of tonnes of chemical weapons into almost all of the world's oceans. The challenge to recover the containers from the ocean or leaving them to rust away over time was another challenge that we had not yet addressed".[2]

The biggest questions associated with the issue relate to not only how to deal with the chemical weapons already dumped into the depths but also who should be responsible for the clean-up. As most of these weapons are dumped into waters outside territorial boundaries and borders, it presents a legal as well as logistical challenge in terms of safely in salvaging and destroying them in a manner that that they are no longer harmful to the environment or human health.

Estimated locations of the Chemical Weapons dumped at Sea.[3]

Agencies Working Towards Destruction of Chemical Weapons

Legally binding treaties have aimed at ensuring that there would be no increase in CW materiel on the sea-bed. However, at the same time thousands of tons of materiel, already dumped into the oceans, continue to pose danger to environment as well as to human health. There have been numerous efforts through inter-governmental organisations and some environmentalist groups, to stave off proliferation and eradicate these weapons. The Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter 1972, administered by the International Maritime Organisation is the central international treaty in this regard. Later, the more specific 'Chemical Weapons Convention' (CWC) established at Hague, in 1997 under the administration of Organization for the Prohibition of Chemical Weapons (OPCW) to control stockpiling or use of chemical weapons. However, "CWC does not directly speak about underwater Chemical weapons but Part IV B of Verification Annex speaks about "Old and Abandoned Chemical Weapons".[4] The United Nations Institute for Disarmament Research also provides consultative service in regards to the elimination of these weapons. Most of the oversight of this issue falls under national armies and governmental efforts are directed or handled by the respective army and not its naval counterpart. Most dumping ceased by 1972, but there is evidence that it did continue in some areas. Dumpsites are scattered throughout the world's oceans as seen above but none where the ill effects of CW is more obvious than the Baltic Sea. Chemical Munitions, Search and Assessment (CHEMSEA) is one regional joint flagship project of the Baltic Sea Region Strategy. It is financed by the EU Baltic Sea Region Programme 2007-2013, funded by the European Union through the European Regional Development Fund. The project is under the leadership of the Institute of Oceanology of the Polish Academy of Sciences (IOPAN).

Challenges in Eliminating Sea-Dumped Chemical Weapons

There are various difficulties in the clean-up process. Despite countries like the United States sharing its data in detail, it is often found to be inaccurate in terms of depths and locations. In addition, even after being able to locate the dumping sites, the disposed weapons keep drifting due to water currents, and keeping track of their movement is difficult. There is also a lack of global coordination in sharing accurate data. Further, "some sites are located in international waters (and thus beyond any particular nation's responsibility), although more often dumping operations were carried out in territorial waters near the borders of neighbouring states".[5]

In addition, "there is still very little information on the environmental risks. The state of corrosion may differ widely from one site to another. The possible hazards of each site need to be determined accurately".[6] Therefore there is a need for more research.

One of the major challenge is destroying these chemical weapons, scientists continue to deliberate and discuss the methods that should be used to deal with the corroding chemical weapons containers and threats of a possible leak if not addressed timely. The commonly used approach is to leave as is, until further studies are sufficient to take action. Initiatives in research and disarming are prohibitively costly and joint operations will likely be the way forward to salvage and properly and safely destroy these munitions. Importantly, a lack of definitive data on

locations, or information as to the condition of these weapons exacerbates the definitive threat posed by these munitions.

The biggest danger is the possibility for these underwater dumping sites to be disturbed and whipped up by violent storms and carried by the winds or the waves to a battered shore, resulting in an intensified offensive with weaponized and deadly poisonous gale winds. A lack of a proper regime for a proper disposal of these weapons has contributed to the lack of coordination or investment into suitable disposal mechanisms and technologies. Political will that is supported by public awareness is critical for this.

The presence of these weapons unguarded on the ocean-floor, can invite attempts to salvage them by sinister groups. In fact, beyond salvaging, underwater detonations can cause a massive leak with subsequent economic, environmental and human costs. There have been incidences of fatalities, as well as documented evidence of the destructive force as data suggests mutation in certain fish varieties due to exposure to abandoned chemical weapons.

Endnotes:

1 Joshua Newman and Dawn Verdugo, "Building awareness of sea-dumped chemical weapons", Disarmament Forum: Maritime Security (United Nations Institute for Disarmament Research, United Nations, 2010), p.46.

2 "History of Chemical Weapons", Green Cross Switzerland, available at http://www.greencross.ch/en/projects/chemical-weapons-campaign/history-of-chemical-weapons.html

3 See, Chemical Weapons Munitions Dumped at Sea: An Interactive Map, James Martin Centre Non-Proliferation Studies, available at http://cns.miis.edu/stories/090806_cw_dumping.htm

4 Paul F. Walker, "Sea Dumped Chemical Munitions", November 11, 2010, available at http://globalgreen.org/docs/publication-168-1.pdf , p. 21.

5 Tine Missiaen and Jean-Pierre Henriet, "Chemical Munitions Dumpsites in Coastal Environments: A Border Transgressing Problem", Renard Centre of Marine Geology (University of Gent, Belgium), p. 1.

6 Ibid. p.10

References:

(Data has been collected from open sources available on public forum)

1. Joshua Newman and Dawn Verdugo, "Building awareness of sea-dumped chemical weapons", Disarmament Forum: Maritime Security (United Nations Institute for Disarmament Research, United Nations, 2010), pp. 45-53.

2. Organisation for the Prohibition of Chemical Weapons, available at http://www.opcw.org

3. A documentary on Chemical Weapons Munitions Dumped at Sea by Monterey International of International Studies, available at http://www.youtube.com/watch?v=wW76ha24QhA

4. Paul F. Walker, "Sea Dumped Chemical Munitions", November 11, 2010, available at http://globalgreen.org/docs/publication-168-1.pdf

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6. Chemical Weapons, available at http://www.reachingcriticalwill.org/resources/fact-sheets/critical-issues/4582-chemical-weapons

7. Thomas C. Weiss, "Health Impact of Chemical Weapons", Disabled World, May 8, 2013, available at http://www.disabled-world.com/editorials/weapons.php

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9. "Chemical Weapons Elimination", Centers for Disease Control and Prevention, available at http://www.cdc.gov/nceh/demil/

10. "Sea Dumped Chemical Weapons Side Event", available at http://www.underwater munitions.org/pdf/Side%20Event%20July%2015%20Final.pdf

11. Tine Missiaen and Jean-Pierre Henriet, "Chemical Munitions Dumpsites in Coastal Environments: A Border Transgressing Problem", Renard Centre of Marine Geology (University of Gent, Belgium), p. 10.