# **Invited Article**

# Accomplishments in the Elimination of Chemical Weapons - A Fact Sheet\*

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# **Summary**

Chemical Weapons Convention (CWC) that was signed in January 1993 and came into force in 1997 could now be viewed as the most successful arms control mechanism. However, with eight countries still not signatory to the CWC and with approximately 25% of declared weapons stockpile remaing undestroyed as yet, the CWC is still a work in progress.

### Introduction

1. The Chemical Weapons Convention (CWC) on 'the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on their Destruction' was signed in January, 1993 in Paris. The Convention entered into force on 29 April 1997. The Convention is unique in nature as it provides for a stringent verification regime, provisions for challenge inspections in case of non compliance concerns and investigations of alleged use of Chemical Weapons (CW). The Organization for Prohibition of Chemical Weapons (OPCW) in The Netherlands is responsible for effective the implementation of CWC.

### **Key Components Of CWC**

- 2. Destruction of CW stock: The most important obligation under the Convention is the destruction of all CW. This includes Chemical Warfare Agents (CWA), filled and unfilled chemical munitions, Old and Abandoned Chemical Weapons. Destruction of CW is the most expensive and time consuming aspect of the implementation of the Convention. Most of the destruction costs are generated by the investment in state-ofthe-art technology to ensure that the risk to people and to the environment is kept to a minimum at every stage in the transportation and destruction of munitions, as well as during the removal and destruction of chemical agents. Destruction, therefore, has to be carried out at highly specialized facilities.
- 3. Non Proliferation of Toxic Chemicals and their Precursors: Each State Party shall adopt the necessary measures to

ensure that toxic chemicals and their precursors are only developed, produced, otherwise acquired, retained, transferred or used within its territory or in any other place under its jurisdiction or control for purposes not prohibited under this Convention.

- 4. Assistance and Protection against CW: Every State Party to the CWC has the right to request assistance from the OPCW in any of the following circumstances: a) the State Party considers CW to have been used against it, b) the State Party considers riot control agents to have been used against it as a method of warfare, or c) the State Party considers itself to be threatened by actions prohibited by the Convention taken by another country.
- 5. The Convention explicitly states that all States Parties have the right to conduct research into, develop, produce, acquire, transfer and use means of protection against chemical weapons.
- 6. The Convention envisages commitment to work together to promote the peaceful application and use of chemistry for the purposes of economic and technological development of countries.
- 7. Universality Principle: It aims that all countries in the world become parties to the CWC. Adherence to the CWC demonstrates a state's commitment to disarmament and international cooperation, and helps to reinforce its position in the mainstream of international politics.
- 8. *National Implementation Measures:* OPCW Secretariat helps the States

Parties to meet their obligations under Article VII of the Convention. This includes, establishing national authorities for effective liaison with the OPCW, taking the necessary steps to enact legislation, including penal legislation and to adopt administrative measures to implement the Convention, identifying declarable chemical industry and trade activities and submitting accurate declarations.

# **Status Of Implementation Of CWC**

- 9. *Participation in CWC*: As of 01 May 2013, CWC's membership was as follows;
- a. Number of State parties 188 representing 98% of global population,
- b. Number of signatory states that had not yet ratified the Convention—2 (Israel and Myanmar),
- c. Number of States that had neither signed nor acceded to the Convention 6 (Egypt, DPR Korea, Syria, Somalia, South Sudan and Angola).
- 10. Submission of Declarations: Total of 180 of the 188 States Parties had submitted initial declarations to the OPCW. Seven states Parties (A State Party, Albania, India, Iraq, the Libyan Arab Jamahiriya, the Russian Federation and the United States of America) had between them declared as CW 71,196 metric tonnes of CWA and precursors, as well as 8,679,150 munitions and containers. In total, 5,382 industrial facilities and plant sites in 80 States Parties were declared in connection with the chemical-industry verification regime.
- 11. *Verifications of CW Stockpile:* Hundred percent of the declared CW stockpiles have been inventoried and verified. Since April, 1997, the OPCW has conducted 5,076 inspections on the territory of 86

- States Parties, including 2,677 inspections of CW related sites. 223 CW related sites have been inspected out of a total of 223 declared.
- 12. CWA Destroyed: A total of 55,939 metric tonnes, or 78.57%, of the world's declared stockpile of 71,196 metric tonnes of CWA have been verifiably destroyed. Albania, India and a State Party have completed destruction of their CW. A total of 3.95 million, or 45.56%, of the 8.67 million chemical munitions and containers covered by the CWC have been verifiably destroyed. Iraq is yet to commence destruction of its declared CW stock. A destruction deadline has yet to be established for Iraq, which acceded to the Convention in 2009. Three possessor States Parties, namely Libya, the Russian Federation, and the United States of America, have been unable to fully meet the final extended deadline of 29 April 2012 for the destruction of their CW stockpiles.
- 13. In accordance with the 'Detailed Plan for the Destruction of Chemical Weapons Remaining After the Final Extended Deadline of 29 April 2012' submitted by these States Parties,
  - a. Libya plans the destruction of the remaining Category 1 CW by December, 2013, Category 2 CW by December, 2016 and Category 3 CW by May, 2013,
  - Russian Federation plans the destruction of remaining Category 1 CW by December, 2015
  - c. United States of America plans the destruction of the remaining Category 1 CW by September, 2023.

- 14. Declared and Destroyed/Converted CWPFs: Thirteen States Parties have declared CWPFs. They include Bosnia and Herzegovina, China, France, India, the Islamic Republic of Iran, Iraq, Japan, the Libyan Arab Jamahiriya, the Russian Federation, Serbia, the United Kingdom of Great Britain and Northern Ireland, the United States of America, and another State Party.
- 15. One hundred percent of the declared Chemical Weapons Production Facilities (CWPFs) have been inactivated. All are subject to a verification regime of unprecedented stringency. 64 of the 70 CWPFs declared to the OPCW by 13 States Party have been either destroyed (43) or converted for peaceful purposes (21). A total of 451 inspections were carried out on all the decalred CWPFs.
- 16. Declared and Verified Chemical Weapons Storage Facilities (CWSFs): Total of 468 inspections, at the 35 CWSFs of 7 States Parties, have been carried out.
- 17. Declared CWDFs (Operational & Under Construction): Thirty Five Chemical Weapons Destruction Facilities (CWDFs) belonging to 6 States parties were involved in the destruction of CW stockpiles. A total of 1562 continuous monitoring inspections were carried out at these facilities.
- 18. Declared and Destroyed ACWs/OCWs: Since 1997, 114 inspections of 49 Old Chemical Weapons (OCW) sites in 15 states parties and 80 inspections of 34 Abandoned Chemical Weapons (ACW) sites in 3 states parties were undertaken.
- 19. Fifteen States Parties had declared a total of 60,398 OCWs produced before

- 1925 and 71,822 OCWs produced between 1925 and 1946. About 20,000 pre-1925 OCWs and 18,000 OCWs produced between 1925 and 1946 are yet to be destroyed.
- 20. Destruction of 25,974 CW abandoned by Japan on the territory of China was verified as destroyed on the ongoing operations at the Abandoned Chemical Weapons Mobile Destruction Facility (ACW-MDF) at Nanjing, China. States Parties had achieved so far the destruction of 35,931 items of ACW.
- 21. Declaration of Riot Control Agents: Of the 179 States Parties that had submitted initial declarations under Article III, 176 States Parties submitted information on riot control agents (RCAs). Of the 176 States Parties that provided information on their RCAs, 130 declared possession of RCAs, while 46 States Parties declared that they did not possess RCAs.
- 22. Declared and Inspectable Schedule Chemicals Facilities: So far the OPCW has conducted 2399 inspections of 5382 industrial sites of a total of 5334 sites declared. It includes,
  - a. Schedule 1 Chemicals 27 declared facilities.
  - b. Schedule 2 Chemicals 481 declared facilities.
  - c. Schedule 3 Chemicals 445 declared facilities.
  - d. DOC/PSF Chemicals 4429 declared facilities.
- 23. According to declared information, 80 States Parties maintained at least one declarable facility pursuant to Article VI of the Convention.

- 24. Challenge Inspections: No challenge inspections were requested under the Convention as yet. It only reflects on the confidence of the member states on the implementation & verification regime of the CWC.
- 25. Investigations of Alleged Use of CW: No requests have been received from States Parties for investigations of alleged use (IAU).
- 26. Assistance and Protection: The OPCW Technical Secretariat organises courses aimed at providing training to first responders, government experts and emergency response units in building and developing national and regional capabilities and emergency response systems against the use, or threat of use, of chemical weapons. Over 2,200 participants have benefitted from these courses.
- 27. Seventy Eight States Parties have pledged assistance under paragraph 7 of Article X. the number of States Parties that have provided information on national programmes related to protective purposes under paragraph 4 of Article X is 146. In all, 45 States have contributed to the Voluntary Fund for Assistance.
- 28. International Cooperation: Since the operationalisation of CWC, International Cooperation programmes had 3,502 beneficiaries, including 315 analytical chemists, 265 Associate Programme participants, 1,966 Conference Support participants, 115 interns, 239 conferences, 92 laboratories, 437 research projects, and 73 transfers of used and functional equipment.
- 29. The OPCW has developed an internationally unique, peer reviewed,

and certified analytical database, containing information on over 3,400 chemical weapons related compounds. This database is essential for onsite verification activities of OPCW inspection teams, and is also made available to States Parties.

- 30. National Implementation Mechanisms:
  Total of 186 of the 188 States Parties have designated or established their National Authorities. 141 States parties have submitted information on their legislative and administrative measures in accordance with Article VII of CWC. Only 91 States Parties have fully enacted legislation and/or adopted administrative measures to fully meet the obligations under the Convention.
- 31. Since 1997, nearly 3,000 participants, including more than 1,500 sponsored participants from all geographical regions have received support in the CWC's effective national implementation through OPCW meetings, workshops and training courses.

### Conclusion

32. The success of the First International Disarmament Treaty, the CWC, is reflected in the fact that within 16 yrs of its Entry into Force, nearly 80% of the world's CW stockpile has been destroyed under strict international supervision. All the CWPFs were either inactivated/ destroyed or converted for peaceful use. Effective measures have been put in place to prevent proliferation of toxic chemicals around the globe. No requests for Challenge Inspection or Alleged Use of CW have been received by the OPCW till date. The Third Review Conference of The States Parties held from 08-19 Apr 2013, noted with satisfaction that the

implementation of CWC makes a major contribution to international peace and security.

### **Endnotes:**

\* Based on information taken from sources available in the open domain.