

# Book Review

## Toxic Warfare

**Author: Theodore Karasik**

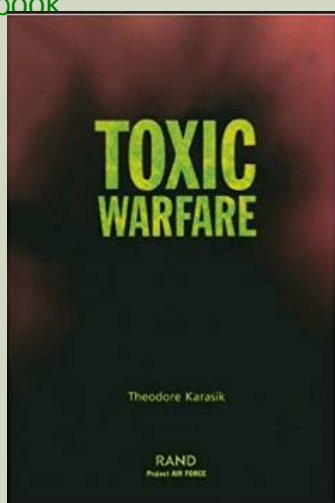
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### Summary

The book has been instrumental in building a positive momentum in favour of crisis response planning in case of any toxic warfare affecting military and civilian lives. The book explores the possible threats and attacks in the past which indicates that toxic warfare is no fiction but reality. The specific dwellings on the subject, keeping the focal point the U.S military forces and civilians in the country, has been majorly discussed in the book



Theodore Karasik's book on "Toxic Warfare" has been published more than one and half decades back, still it remains relevant today as the Syrian theatre continues to face the threat of Chemical Weapons. Indeed, a positive momentum has been built in favour of crisis response planning in case of any toxic warfare affecting military and civilian lives. Nowadays' non-conventional war tactics are regarded as highly efficient and convincing. There has been an increasing interest in weapons which include chemicals and industrial waste as these resources are neither very expensive nor difficult to access. Toxic warfare is actually the use of chemicals, industrial waste which are powerful enough to harm or alter the behaviour of an adversary in any crisis. Therefore, toxic warfare does not need the use of conventional weapons rather it can be easily be used through the release of such substances into the environment leading to the possibility of huge mass outcry.

The author indicates clearly the toxic weapons and their usage on various occasions. In comparison to chemical weapons that involve the use of substances that are banned like nerve agent sarin and others, toxic weapons are not required to be made out of high-end technology. For toxic warfare, one needs not to be highly technical and can avail the resources easily. There are many types of hazardous materials that can function as toxic warfare such as irritants, choking agents, flammable industrial gases, water supply contaminants, and organophosphate pesticides, etc. In chapter 1, the author introduces some examples of toxic warfare which are commonly accessible around the world. It would not be incorrect to say that any usage of toxic substances for attaining political and military goals, the consequences will be high. In some cases,

toxic warfare has been ineffective but that does not mean the threat does not exist, even if it is low. Since it is easily accessible, it can be seen as a “weapons of opportunity” by many state and non-state actors as indicated by the author. There remain enough possibilities within the U.S (United States of America) where such kind of weapons can be used by some rouge or radicalized groups working on domestic or international agendas.

The author takes these arguments one by one and seeks to understand the composition of the toxic weapons in detail. Toxic warfare requires the use of inert chemicals which in some cases can produce immediate or mild health effects. Even the dust agents can be considered as a part of toxic warfare. There are various forms of toxic waste which includes petroleum spills, smoke refuse, sewage, and medical waste, etc. These substances have a different degree of effects on the environment and people. Nevertheless, chemical weapons convention (CWC) regulates the use of chemical substances and also to some degree the toxic weapons in the warfare. Numerous substances used in toxic weapons are found in CWC list which aims at super-lethal weapons that involve nerve agents and dual use of chemicals. The sources of chemical toxins for the state and non-state actors can be in the formulation of paint, organic-chemical producers, pesticides, pharmaceutical wastes, lead, mercury and cadmium-nickel battery manufacture, textile mills, cosmetics manufacturing, etc.

The author bifurcates toxic warfare into three categories that are: Health hazards, damage to or contaminate of military or civilian infrastructure and psychological effects. The book reveals some real incidents like in 1970, the exposure of gases which was liable for a big, potentially dangerous vapor

release in a metropolitan area where the explosion involved a 30,000-gallon capacity tank. Another incident that took place in Bhopal, India, where an employee of the company had mixed water into Methyl Isocyanate (MIC) in 1984. The deadly gases released from the mixture of water and MIC affected people with horrendous impacts which resulted in more than 3800 fatalities. Consequences like these are indeed the main trademark of toxic warfare.

In chapter 3, the book reveals about the brainstorming done from time to time about the toxic weapons and its probable usage. There is no doubt that toxic weapons benefit the cause of state and non-state actors who seek to recondition there various military and political agendas. There is enough availability of industrial and chemical waste at a low cost that can be deployed through air delivery like missiles and rockets, land delivery like cars and trucks, etc. However, there is uncertainty in getting desired success by using toxic weapons as there is huge ambiguity in their effects on the surrounding and target points, and also because the weapons are often difficult to target and there physical impacts may be inconsistent. Nevertheless, such kind of weapons where much of it is easily available in the world with ease makes it the next preferred option for terrorists, insurgents and rogue nations. These weapons are perceived to have better tactical and psychological advantages in the situation of non-conventional war. The author clearly depicts how significant interest has been developed in such weapons by more sophisticated terrorist networks across the world. The book also indicates how raids on Al-Qaeda cells both in Europe and Afghanistan have revealed that the Al-Qaeda terrorists were planning about the deployment of toxic weapons. Toxic warfare by design is a weapon for non-conventional war and terrorists are planning more

complex compositions and strategies to incorporate these toxic weapons in their execution.

U.S has been known to face threats of toxic warfare and often seems prudent to acknowledge it as the only threat to its forces in military operations but also civilian within the country. This increases the risk of toxic warfare and its easy availability of resources increases the probability of attacks. This is a grave problem that is correlated to the massive number of sites in the country where chemicals are stored which can lead to mass destruction. Therefore, the first responders of the United States in case of the toxic warfare are those individuals who are part of an organization responsible for responding to an incident involving a weapon of mass destruction. The author reveals that first responders are personnel from the medical, law enforcement, fire or rescue, and Explosive Ordnance Disposal (EOD) organizations. Also, civilian preparedness efforts must be well synchronized and information sharing can play a vital role in dismantling the huge psychological impact of the toxic warfare in the country.

Toxic warfare is a reality and should be taken seriously with pro-active measures. Unfortunately, the increase in the interest of toxic weapons by the non-state actors have raised alarming concerns for global prosperity and peace. The persistent use of small scale toxic weapons there of signals that state and non-state actors alike recognize that they are in possession of a potent weapon. However, it seems U.S understanding of this threat has improved, particularly for current counterterrorism operations. The book provides useful detailed documentation on toxic warfare but falls short of making recommendations or guidelines on proactive measures regarding the issue. The only shorting coming from the book is that it doesn't formulate any

narrative and direction for the general public so as to counter the toxic warfare. Therefore, a carefully calculated risk assessment should reflect upon as a medium for better planning and strategic thinking to carry out proactive measures to counter the threats of toxic warfare.