

# Environmental warfare operation

## ABSTRACT :

This chapter aims to provide principles for environmental warfare operations and chemical warfare operations. Environmental warfare and chemical warfare operations are defined as combining chemical weapons with hydrogeological, physical, and chemical processes. The design of an environmental warfare operation process or a chemical warfare operation process starts by selecting the damage effects required. then selecting suitable chemical agents or microbiological agents for these applications. then selecting a method for introduction through water, soil, food, or air. Environmental warfare is a war whose goal is not to kill enemies but to generate partial health damage for their enemies. Environmental warfare was known a long time ago. This type of war is not built on accurate calculations but is based on rough approximations. This research presents a logarithmic plan for designing any environmental warfare operation. These steps are: The first step is estimating the damage effects required from this operation of environmental warfare. The second step is choosing chemical compounds and environmental carriers for these compounds. third step: estimating the time required for this process and the time required for damage effects. Environmental warfare is an important issue. The main difference between chemical warfare and environmental warfare is that chemical warfare involves the transfer of chemical agents. mainly directly Through air, soil, or water in environmental warfare, a chemical agent is transferred through the hydrological cycle.

Keywords: environmental warfare , operations, health damage.

## 1. INTRODUCTION :

War is a phenomenon of organized collective violence that affects either the relations between two or more societies or the power relations within a society. War is defined as doing damage to enemies, either directly by killing them or indirectly by damaging their health and resources. Indirect war is defined as damaging enemies without direct physical contact with them. This type of war is similar to genetic war weapons, but the main differences are using contaminants and spreading them in the air, water, or soil. There are different types of war, depending on the situation between nations. Direct war is defined as doing damage to enemies by directly killing them using a traditional weapon such as a sword, a gun, etc., or by using chemical weapons, biological weapons, or nuclear weapons. Indirect war is defined as doing damage to an enemy nation by damaging its health and resources or by introducing such contaminants into the food chain and then into the human bodies of enemies. The main object is to do damage to enemies by losing their ability to think. damage to people's health, the environment, the economy, wildlife, forests, or nature's surface water. The main goal is to cause damage to the enemy's brain, partially damaged for the health of enemies, changing their position from modern civilization to the stone age. This kind of war is classified under hidden war, or war during peacetime. One clear example of an environmental warfare operation was the pumping of crude oil into the Persian Gulf during the Second Gulf War by Iraqi forces

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**CHEMICAL WARFARE OPERATIONS:  
TYPES OF WEAPONS FOR CHEMICAL WARFARE :  
ENVIRONMENTAL WARFARE OPERATIONS:  
TYPES OF WEAPONS FOR ENVIRONMENTAL WARFARE :**

**2. MATERIAL AND METHODS:**

Planning for the environmental warfare consists of three steps: The first step is to define the damage effects required. The second step is to define process design parameters for contaminants introduced in the environmental cycle and introduced to the food chain, changing ecosystems by introducing certain species and destroying other species in the ecosystem. third step: estimating the damaging effects over time. and the proper selection of the objective is of the greatest importance. Properly, it should be one which supports the objective or mission of the next higher level .An analysis of the Principles of Environmental warfare War of various nations reveals only a narrow range of divergence. Where change is necessary, we have to be cautious in effecting it. Radical change in military policy is extremely difficult to implement. Our current Principles of Environmental warfare are more reflective of the way we fought in the past than the manner in which we plan to fight today and in the future .Environmental warfare is not visible to many of us, but it is classified as cooled chemical and microbiological warfare. The main target of any war is to defeat your enemy. Selection of war tools based on type of warfare (cooled war, hot war, direct war, or indirect war) War is defined as a damaging target for the enemy. This is the objective of any war. damaging targets of the enemy, from the killing of enemy soldiers to making nonrecoverable damage to the citizen health of the enemy. A war operation consists of objectives, offensives, mass, economic force, maneuver, unity of command, security, and simplicity. Objective:The principle of objective leads all war activity. At the operational and tactical levels, objectives ensure all actions contribute to the higher commander's end state. When undertaking any mission, commanders should clearly understand the expected outcome and its impact. The purpose of war operations is to accomplish the war objectives that support achieving the conflict's overall political goals. In offensive and defensive operations, this involves destroying the enemy and his will to fight. this meaning, including complete damage by killing or partially damaging the health of an enemy. partially damaged enemy, which is defined as creating very dangerous health problems. This is the main objective of environmental warfare. The objectives of the environmental warfare principles of restraint and legitimacy cannot be separated, particularly in stability operations. The amount of effort used to obtain the objective must be prudent and appropriate to the war's aims. The means used to accomplish the war objective must not undermine the local population's willing acceptance of a lawfully constituted government. Without restraint or legitimacy, support for war action deteriorates, and the objective becomes unobtainable. Mass: Mass Concentrate the effects of manpower at the decisive place and time: Manpower masses the effects in time and space to achieve both destructive and constructive results. Massing in time applies the elements of manpower to multiple decisive points simultaneously. Massing in space concentrates the effects of manpower on a single decisive point. Both can overwhelm opponents or dominate a situation. Leaders select the method that best fits the circumstances. Manpower effects overwhelm the entire enemy's or adversary's manpower before it can react effectively. Manpower can mass lethal

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and nonlethal effects quickly and across large areas. This does not imply that they accomplish their missions with mass chemical attacks alone. Swift and fluid maneuvers based on situational understanding complement each other. Often, this combination in a single operation accomplishes what formerly took an entire war. In manpower mass, the effects of a combination of elements critical to the enemy. Some effects may be concentrated and vulnerable to operations that mass in both time and space. Other effects may be spread throughout the depth of the operational area, vulnerable only to massing effects over time. Mass applies equally in operations characterized by war support or stability. Massing in a stability or war support operation includes providing the proper manpower at the right time and place to alleviate suffering and provide security. Leaders determine priorities among the elements of full operations and allocate the majority of their available manpower to the most important tasks. They focus manpower to produce significant results quickly in specific areas, sequentially if necessary, rather than dispersing capabilities across wide areas and accomplishing less. Offensive action is the most effective and decisive way to achieve a clearly defined objective. As a principle of environmental warfare, offensive means only relating to the execution of environmental warfare operations. offensive in environmental warfare does not include seizing, retaining, or exploiting. As a principle of war, offensive is synonymous with initiative. The surest way to achieve decisive results is to execute the nature, scope, and tempo of an operation. Leaders use initiative to impose their will on an enemy or adversary or to control a situation. Executing is essential to maintaining the freedom of action necessary to achieve success and exploit vulnerabilities. It helps leaders respond effectively to rapidly changing situations and unexpected developments. In environmental warfare operations, offensive operations are the means by which manpower holds the initiative while maintaining freedom of action and achieving decisive results. The importance of offensive action is fundamentally true across all levels of war. Defensive operations prepare for offensive operations by economizing forces and creating conditions suitable for a long period of time. Chemical warfare operations. The economy of war operations: is the reciprocal of mass. Leaders allocate only the minimum manpower necessary to execute operations so they can mass manpower for the decisive operation. This requires accepting prudent risks. Taking calculated risks is inherent in conflict. Leaders never leave any unit without a purpose. When the time comes to execute, all units should have tasks to perform. Simplicity: Prepare clear, uncomplicated plans and clear, concise orders to ensure thorough understanding. Plans and orders should be simple and direct. Simple plans and clear, concise orders reduce misunderstanding and confusion. The situation determines the degree of simplicity required. Simple plans executed on time are better than detailed plans executed late. Leaders at all levels weigh the potential benefits of a complex concept of operations against the risk that subordinates will fail to understand or follow it. Orders use clearly defined terms and graphics. Doing this conveys specific instructions to subordinates with reduced chances for misinterpretation and confusion. Multinational operations put a premium on simplicity. Differences in language, doctrine, and culture complicate them. Simple plans and orders minimize the confusion inherent in this complex environment. The same applies to operations involving interagency and nongovernmental organizations. Surprise: shock an enemy with an unexpected environmental attack, generating the required damage for the enemy. Reaching the damage effects required was demanding surprising effects. Security protects and preserves manpower. Security results from the measures a leader takes to protect itself from surprise, interference, sabotage, annoyance, and threat surveillance and reconnaissance. War deception greatly enhances safety. unity of leaders: for all goals, there must be unity under all conditions at all times. Applying full manpower requires the unity of leaders. United of Leaders means that a single leader directs and

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coordinates the actions toward a common objective. Giving a single leader the required authority is an effective way to achieve an objective. The joint, interagency, intergovernmental, and multinational nature of unified action creates situations in which all manpower in the operation area is unified. There are no maneuver effects in environmental warfare.

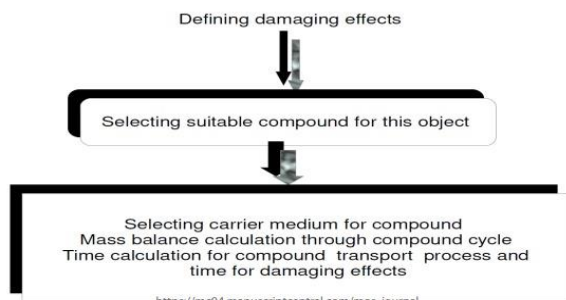


Fig.1

## 2.2 defined the required damage effect for enemies:

define the required damage effect for the enemy: This process starts with changing ecosystem species by introducing certain species to destroy other species or introducing certain contaminants in water and soil to spread certain health diseases. or by introducing certain contaminants into human DNA to create defects in people's health. This process is designed based on the required damage effect for the enemy and the cost of this problem. For example, using heavy metal contaminants in drinking water resources or in agricultural food to increase problems with Alzheimer's disease This means the contaminants flux in water resources should be above the guideline. to have damaging effects on the health of people living on tarred land. required dose from contaminants to reach damaging effects. The first step is evaluating the quantity of water flow rate for rivers or the quantity of water in aquifers or lakes. The second step of evaluation required contaminants for producing these effects and the time required for injection of contaminants into the water body.

## 2.3 choosing environmental carriers for contaminants :

Selection of environmental carriers based on natural factors and type of operation, in case the target is changing species in an ecosystem for beaches, may include introducing certain types of predators to kill other types of fish. example, by introducing too many white sharks to certain beaches. The main object here is to damage the biodiversity of these beaches and kill many other types of fish. generating economic problems for these beaches. Another example is introducing contaminants into water resources in different ways. dependent on water sources such as stones in water flowways in rivers. or dumping contaminants, such as stones, underground in groundwater flowways to aquifers. This is only a list of contaminants. There is a way for every type of object to be introduced.

## 2.4 estimating damage effects time:

in the design of the environmental war process, there is time for transporting components to the enemy's location. and time for producing damage effects. The time calculations for reaching damage for an enemy are normally called process time. time of damage effects it is the time between exposure and appearance damage effects. Design calculations are based on the conservation of mass

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laws. In some cases, conservation of energy, including reaction kinetics, hydrological laws.

### 3.theoretical basis :

Contaminants in soil, water, and air have damaging effects on people's health and the environment through complex interactions between soils, water, and air. Physical and chemical processes play an important role in distributing contaminants to various reaches of a stream or river. Although advection and dispersion are the physical processes affecting solutes in many surface waters, other physical processes are also important for a given water body. Many streams and rivers receive large quantities of water from lateral inflows. A statement of material balance on the same system is: total contaminant mass is the sum of the mass in the aqueous phase and the mass sorbed. The main process design calculations are based on conservation of mass for hydrological purposes, conservation of energy, reaction kinetics, and methods for spreading contaminants in the required area.

### 4.discussion:

environmental warfare involves using the toxic properties of chemical substances as weapons. The concept of environmental warfare is well known from a long time ago. However, in the past, the majority of environmental warfare operations were built based on approximations and rough calculations, not on detailed design process calculations. The approximations missed the goal, or there were overdesign problems. To overcome these problems, clear logarithmic for designing process parameters for environmental warfare operations. The logarithmic diagram plan for environmental warfare operations consists of three main steps: The first step is defining the damage effects required. The second step is defining the proper compound to be used. The third step is the calculation of process parameters, process time, environmental carriers and damage effect time.

### 5.conclusions:

Environmental warfare is the use of the toxic properties of chemical substances to injure or incapacitate an enemy in warfare and associated operations. A chemical substance intended for such use in Environmental warfare operations is defined as an Environmental warfare agent. Special Chemical Weapons are used for environmental warfare operations. Those chemical weapons are toxic and non-explosive, those chemicals are destroyed, people's health and causing nonrecoverable damage to their health. These chemicals are introduced through water or food. Chemical agents have been used in war since time immemorial. Environmental warfare operations were known a long time ago, but without precision design calculations for environmental warfare operations. Environmental warfare is a chemical process that transports chemical compounds into the environment to partially damage human health, wildlife, or forests, and then to human. The purpose is not killing, but generating health problems in humans, reducing human performance, and changing them to humans from the Stone Age. These chemical agents are classified according to the mechanism of toxicity in humans into blister agents, nerve agents, asphyxiants, choking agents, and incapacitating or behavior-altering agents. In addition to immediate injuries caused by chemical agents, some of them are associated with long-term morbidities and psychological problems. The accuracy of the design calculation in environmental warfare is very important to maintaining damaging effects in the required locations, not transport to other locations due to weather or any other effects. The main process design parameters are the concentration of chemical compounds, water flow rate or fluid flow rate, time for the process, and time for damage effects and appearance.

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