



ICRC

ADVISORY SERVICE

ON INTERNATIONAL HUMANITARIAN LAW

1976 Convention on the Prohibition of Military or any Hostile Use of Environmental Modification Techniques

The Convention on the Prohibition of Military or any other Hostile Use of Environmental Modification Techniques (ENMOD Convention) is an instrument of international disarmament law specifically intended to protect the environment in the event of armed conflict. It prohibits hostile use of the environment as a means of warfare. The provisions of Protocol I of 1977 additional to the Geneva Conventions of 1949 form an essential complement to those of the ENMOD Convention, as they directly prohibit damage to the environment during armed conflict. Other rules and principles of international humanitarian law also confer protection on the environment during armed conflict, though without mentioning it specifically. This is particularly the case with general customary principles regarding the conduct of hostilities, such as the principle of distinction, which limits attacks to military objectives, and that of proportionality, which prohibits the use of means and methods of warfare that cause excessive damage. The ENMOD Convention was negotiated at the Conference of the Disarmament Commission and was adopted by the General Assembly of the United Nations on 10 December 1976. It was opened for signature in Geneva on 18 May 1977, and entered into force on 5 October 1978.

The ENMOD Convention: prohibiting use of the environment as a means of warfare

The ENMOD Convention is specifically intended to prevent use of the environment as a means of warfare, by prohibiting the deliberate manipulation of natural processes that could produce phenomena such as hurricanes, tidal waves or changes in climate.

Prohibitions

States party to the Convention undertake “not to engage in military or any other hostile use of environmental modification techniques having widespread, long-lasting or severe effects as the means of destruction, damage or injury to any other State Party” (Article I, para. 1).

The States Parties further undertake not to “assist, encourage or induce” any State, group of States or international organization to engage in such activities (Article I, para. 2).

The **environmental modification techniques** covered are those intended to change “through the deliberate manipulation of natural

processes, the dynamics, composition or structure of the Earth” (Article II).

To be banned by Article I, the use of prohibited techniques must meet all the following criteria:

- be for **hostile purposes**;
- cause destruction, damage or injury to **another State Party**;
- have widespread, long-lasting or severe **effects**.

While not part of the ENMOD Convention, “Understandings” have been drawn up that define the extent, duration and severity criteria (Article I) for application of the Convention.

The definitions are as follows:

- **widespread**: encompassing an area of several hundred square kilometres;
- **long-lasting**: lasting for a period of months, or approximately a season;
- **severe**: involving serious or significant disruption or harm to human life, natural and economic resources or other assets.

As examples, the Understandings also include a non-exhaustive list of phenomena that could result from the use of environmental modification techniques: earthquakes and tsunamis; an upset in the ecological balance of a region; changes in weather patterns (clouds, precipitation, cyclones and tornadic storms); changes in climate patterns; changes in ocean currents; changes in the state of the ozone layer and changes in the state of the ionosphere.

Additional Protocol I: ban on the use of methods and means of warfare that damage the environment

Protocol I of 1977 additional to the Geneva Conventions of 1949 applies to international armed conflict and contains two specific provisions for the protection of the environment. These provisions are clearly complementary to the ENMOD Convention in the event of armed conflict: while the Convention prohibits deliberate modification of the environment as a means of warfare, Additional Protocol I prohibits attacks on the environment as such, regardless of the means used.

Article 35, para. 3 of Additional Protocol I prohibits the use of “methods or means of warfare which are intended, or may be expected, to cause widespread, long-term and severe damage to the natural environment”.

Using the same language, Article 55 aims to protect the *population*, whose health and survival in the event of armed conflict could be endangered by damage to the environment. The article also prohibits attacks on the natural environment by way of reprisals.

The Rome Statute of 1998 incorporates some of the prohibitions contained in Additional Protocol I. For instance, the **International Criminal Court** has jurisdiction in respect of war crimes that consist in “intentionally launching an attack in the knowledge that such attack will cause incidental [...] widespread, long-term and severe damage to the natural environment which would be clearly excessive in relation to the concrete and direct overall military advantage anticipated” (Article 8, para. 2 [b, iv]).

Breaches of the Convention by a State Party

Any State with reason to believe that any other State is violating the Convention may lodge a complaint with the Security Council of the United Nations, on the basis of which the Security Council may conduct an enquiry (Article V, para. 3 and 4).

Each State Party also undertakes to assist any State Party that so requests, if the Security Council decides that the party concerned has been exposed to danger as a result of a violation of the Convention (Article V, para. 5).

National implementation measures

Each State party to the Convention undertakes to “take any measures it considers necessary in accordance with its constitutional processes to **prohibit and prevent** any activity in violation of the provisions of the Convention anywhere under its jurisdiction or control” (Article IV).

In particular, each State should enact criminal legislation to outlaw

and repress the use of prohibited techniques within its territory and anywhere else under its jurisdiction or control. In addition, that legislation should contain provisions to ensure extra-territorial application.

Effective protection of the environment during armed conflict is possible only if participation in the ENMOD Convention and Additional Protocol I is universal. While the feared new means of warfare that the Convention seeks to prevent have not emerged, the threat has not been eliminated. The widest possible adherence to the Convention plays an essential preventative role.

Prevention also involves raising awareness of the existing rules. The States are therefore expected to **make known** the provisions of the ENMOD Convention as widely as possible starting in peacetime.

As the armed forces are the group most directly concerned by the prohibitions laid down in the Convention, these should be included in military training, military manuals and regulations concerning the law of war.

Following consultation with an international group of specialists, the ICRC drew up a set of *Guidelines for military manuals and instructions on the protection of the environment in times of armed conflict* as a guide for States to use when incorporating this material into such documents. The General Assembly of the United Nations has invited all States to “disseminate widely the revised guidelines” and to “give due consideration to the possibility of incorporating them into their military manuals and other instructions addressed to their military personnel” (resolution A/RES/49/50, 9 December 1994).

Review Conference

The Convention stipulates a procedure for the regular revision of the Convention (Article VIII). The ENMOD Review Conference has met in 1984 and 1992.

Consultation, cooperation and scientific exchange

The States Parties have a duty to consult each other and cooperate to resolve any problems related to the

objectives of the Convention or its application (Article V, para. 1 and 2).

In particular, a consultative committee of experts may be convened for that purpose. The committee’s functions and rules of procedure are set out in an annex to the Convention.

The States Parties also undertake to facilitate the fullest possible exchange of scientific and technological information on the use of environmental modification techniques for peaceful purposes, and to cooperate in the economic and scientific realms for the preservation, improvement and peaceful utilization of the environment (Article III)

The role of the ICRC

The ICRC’s involvement in protecting the environment during armed conflict stems from its mandate based on international humanitarian law and from the fact that the General Assembly of the United Nations has requested it to do so.

After taking part in the second ENMOD Review Conference in 1992 and in other relevant international forums – notably the Rio Conference (also 1992) – the ICRC organized three meetings of experts on protection of the environment during armed conflict.

The ICRC’s work leads it to conclude that priority should be given to effective implementation of existing rules, i.e. finding ways to enhance knowledge of and compliance with the law on protecting the environment during armed conflict.

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