

# Recent studies on the protection of the environment in time of armed conflict

by Antoine Bouvier<sup>1</sup>

“War and preparation for war are a major source of environmental damage which must be subjected to greater accountability and control”.<sup>2</sup>

## Introduction

The problem of protecting the environment in time of armed conflict has given rise to numerous discussions and major studies over the last two years.

In our opinion, there are at least two distinct reasons for the keen interest in this question. In the first place it is quite logically a response to the increasingly energetic efforts to improve, both nationally and internationally, the protection of the environment in peacetime.<sup>3</sup> Secondly, this interest reflects the fears engendered during and after the 1990-1991 Gulf war that set the Middle East ablaze.

At that time, governments and public opinion realized more than ever before how dangerous modern warfare can be for the natural environment.

Quite a lot of legal and ecological issues arising from this conflict still remain unsettled. It is as yet impossible to make a conclusive “ecological assessment” of it: nature evolves slowly and a longer

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<sup>1</sup> The views expressed here are those of the author alone and do not necessarily reflect those of the International Committee of the Red Cross.

<sup>2</sup> Statement by Mr. Maurice Strong, Secretary-General of the United Nations Conference on Environment and Development, made during the Conference opening ceremony on 3 June 1992 in Rio de Janeiro.

<sup>3</sup> For an in-depth analysis of the development of international environmental law see: Kiss, A. and Shelton, D.: *International environmental law*, Transnational Publishers, Inc., London, 1991.

period of observation is required before an accurate analysis of the environmental damage caused by the conflict can be completed.<sup>4</sup>

For reasons which do not come within the scope of this article, the most pessimistic forecasts have fortunately failed to materialize and some of the most spectacular instances of environmental damage (if not indeed the most serious, for example the burning of the Kuwait oil wells), had less lasting effects than was feared. This relatively fortunate development did not however affect the work to improve the protection of the environment in time of armed conflict that was begun immediately after the close of hostilities.<sup>5</sup> On the contrary, this work was intensified and the issue has recently appeared on the agenda at several international conferences.

The purpose of the present article is not to analyse the regulations governing the protection of the environment in time of armed conflict<sup>6</sup> or to examine the special case presented by the 1990-91 Gulf war.<sup>7</sup>

Its objective rather is to present the results of some recent studies on the protection of the environment in time of conflict.

To this end, consideration will be given in turn to the work of a meeting of experts convened by the International Committee of the Red Cross in April 1992, the discussions of the Rio Conference on the protection of the environment in time of conflict and the main results

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<sup>4</sup> In this connection see *The Environmental Legacy of the Gulf War, a Greenpeace Report*, 1992. The report also includes a close analysis of already known instances of environmental damage.

<sup>5</sup> For further information on these initial studies, see Bouvier, A.: "The protection of the natural environment in time of armed conflict", *IRRC*, No. 285, November-December 1991, p. 570, footnote 14.

<sup>6</sup> For this, see the article by Philippe Antoine, "International humanitarian law and the protection of the environment in time of armed conflict", published in the present issue of the *Review*, pp. 517-537. See also Bothe, M., "The protection of the environment in times of armed conflicts: Legal rules, uncertainty, deficiencies and possible developments in the *Report on the work of the meeting of experts on the protection of the environment in time of armed conflict*", ICRC, Geneva, September 1992; Bouvier, A., *op. cit.*; Falk, R.: "The Environmental Law of War: an Introduction" in Plant, G. (ed.), *Environmental Protection and the Law of War*, Belhaven Press, London and New York, 1992, pp. 78-95; Saalfeld, M., «Umweltschutz in bewaffneten Konflikten aus völkerrechtsgeschichtlicher Sicht», in *Humanitäres Völkerrecht*, No. 1, 1992, pp. 23-31.

<sup>7</sup> In this connection see the article by Adam Roberts, "Destruction of the environment during the 1991 Gulf War" published in this issue of the *Review*, pp. 538-553. See also: Fauteux, P., "Environmental Law and the Gulf War" in *International Union for the Conservation of Nature Bulletin*, Vol. 22, No. 2, September 1991, pp. 26-27; Terry, J., "The Environment and the Laws of War; the Impact of Desert Storm", in *Naval War College Review*, Vol. XLV, No. 1, pp. 61-67.

of the second meeting to review the ENMOD Convention<sup>8</sup> which was held in September 1992.

Some aspects of the current discussions in the Sixth Committee of the United Nations General Assembly will also be examined.

## **I. Meeting of experts convened by the ICRC (Geneva, 27-29 April 1992)**

Since the ICRC has been mandated by the international community “to work for the understanding and dissemination of knowledge of international humanitarian law [...] and to prepare any development thereof”,<sup>9</sup> it is naturally directly concerned by the problem of the protection of the environment in time of armed conflict.

It has accordingly taken part in work devoted to this subject after the 1990-1991 Gulf war and prepared a report for the 26th International Conference of the Red Cross and Red Crescent<sup>10</sup> (Budapest, November-December 1991).<sup>11</sup>

The ICRC’s competence as regards the protection of the environment in time of armed conflict was, moreover, explicitly endorsed at the 46th session of the United Nations General Assembly (1991): in General Assembly decision 46/417 the ICRC was invited to continue its work in this area and to report to the 47th session. (See Chapter IV below.)

To discharge this mandate, the ICRC convened a meeting of experts to study the problem of protection of the environment in time of armed conflict. The meeting, which was held in Geneva from 27 to 29 April 1992, brought together some thirty experts from the armed forces, academic circles, the scientific community and governments as well as representatives of governmental and non-governmental

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<sup>8</sup> Convention on the Prohibition of Military or any Other Hostile Use of Environmental Modification Techniques.

<sup>9</sup> See the Statutes of the International Red Cross and Red Crescent Movement, Article 5 g).

<sup>10</sup> Doc. C.I/4.2/1: Implementation of IHL, protection of the civilian population and persons *hors de combat*, pp. 15-23.

<sup>11</sup> This conference finally had to be postponed to a later date. An explanation for this postponement is given in an article by Y. Sandoz: “A propos of the postponement of the 26th International Conference of the Red Cross and Red Crescent”, *IRRC* No. 286, January-February 1992, pp. 5-12.

organizations. All were invited on a personal basis.<sup>12</sup> The goals of the meeting were as follows:

1. to define the content of existing law;
2. to identify the main problems involved in implementing this law;
3. to identify any gaps in existing law;
4. to determine what should be done in this area.

It is obviously not possible here to cover all the discussions at the meeting or go into the experts' conclusions in detail (some of their conclusions were of a provisional nature because certain questions require further examination).

The following account therefore gives only the main points discussed.

The importance and relevance of the currently applicable rules (whether of treaty-based or customary international humanitarian law, environmental law or rules based on the principles of public international law governing international responsibility) were clearly reaffirmed. The experts expressed the opinion that if these rules are sufficiently known, implemented and respected, they should effectively protect the environment. In that connection, the experts insisted on the need to spread knowledge of them as widely as possible during peacetime, particularly through the use of *handbooks* specifically intended for members of the armed forces.

The experts then examined the applicability during conflicts of the rules of *international environmental law*. Although the provisions of this law are intended *a priori* for peacetime, most of the experts agreed that they could be presumed to be applicable also during armed conflict.

While acknowledging the importance of the existing law, the experts also came to the conclusion that there was *a need to clarify certain aspects of applicable law* in order to adapt it more closely to the realities of modern conflicts; the protection of the environment during *non-international armed conflict* was mentioned as one of the areas in which clarification was imperative.

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<sup>12</sup> The report on the meeting is entitled "Meeting of experts on the protection of the environment in time of armed conflict. Report on the work of the meeting", ICRC, Geneva, September 1992. Cf. also Doc. UN A/ç/328 of 31 July 1992 "Protection of the environment in times of armed conflict", Report of the Secretary General, pp. 11-14. The meeting was also reported in *UNIDIR Newsletter*, No. 18, July 1992, pp. 46-47.

The experts also agreed with certain proposals *to develop the law*. They supported the proposal put forward by some of them to protect *nature reserves* which, subject to conditions that remain to be set, could be likened to demilitarized zones or other protected areas.

The meeting drew up a list of the main legal questions which deserved attention.<sup>13</sup> They included the role and exact scope of the rules of customary law protecting the environment; interpretation of the applicable treaty-based rules (in particular those of the 1977 Additional Protocol I and the provisions of the ENMOD Convention); the balance which should be preserved between military necessity and the protection of the environment; and the question of international responsibility in the event of serious damage to the environment.

For lack of time, it was not possible to examine all these questions and further studies will have to be undertaken before final conclusions can be reached. The meeting did however provide an opportunity to analyse certain delicate questions in depth and the result has been, by and large, encouraging.

## **II. United Nations Conference on the Environment and Development (Rio de Janeiro, 3-14 June 1992)**

The Conference, which was the outcome of very long and arduous preparations, reviewed most of the questions concerning *development, the protection of the environment*, and the links between these two complicated issues.

Given the Conference's extensive agenda — which included such sensitive issues as *technology transfer, weather modification* and *sound management of biotechnology*, to cite but a few examples — the specific subject of protecting the environment in time of conflict naturally occupied only a marginal position.

Nevertheless, this subject gave rise to a major exchange of views, both during the preparatory meetings and during the Conference itself.

### **(a) Conference Preparatory Committee**

The protection of the environment in time of conflict was discussed during the third meeting of the Preparatory Committee

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<sup>13</sup> This list appears as Annex 5 in the report on the proceedings of the meeting (cf. footnote 12 above).

(Geneva, 12 August - 4 September 1991), after a report had been submitted on the “environmental assessment of the Gulf crisis”.<sup>14</sup>

On that occasion, the Secretary-General of the Conference, Mr. Maurice Strong, said he was convinced that “much strengthened measures to prevent deliberate damage to the environment as an instrument of war must be put in place”.<sup>15</sup>

The ICRC, which was invited to present the main legal provisions relating to the protection of the environment in time of conflict,<sup>16</sup> reaffirmed the usefulness and importance of the existing rules and stressed the need to find ways of improving their implementation and compliance with them.

There were few proposals to establish new rules; instead, the participants at the meetings of the Preparatory Committee underscored the importance and relevance of existing law and the need for greater compliance with it.

This view is clearly reflected in the following two draft articles directly concerning the protection of the environment in time of conflict which the Preparatory Committee submitted to the Rio Conference for adoption:

**1. Principle 24 of the Rio Declaration:** “Warfare is inherently destructive of sustainable development. States shall therefore respect international law providing protection for the environment in times of armed conflict and cooperate in its further development, as necessary.”

**2. Paragraph 39.6 (a) of Agenda 21:** “[In view of the importance of full compliance with the relevant rules of international law, all appropriate means should be considered to prevent wilfully caused large-scale destruction of the environment [in times of war], which cannot be justified under international law. The General Assembly and its Sixth Committee as well as, in particular, the expert meetings of the International Committee of the Red Cross, are the appropriate forums to deal with this subject.]”<sup>17</sup>

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<sup>14</sup> *Environmental Assessment of the Gulf Crisis*, Report of the Secretary-General of the Conference, doc. A/CONF. 151/PC/72 of 15 July 1991.

<sup>15</sup> Cf. doc. *Opening Plenary Statement*, Prep. Com. III, Mr. Maurice F. Strong, 26 August 1991.

<sup>16</sup> Cf. doc. *Protection of the natural environment in time of armed conflict, an overview of IHL and of the position of the ICRC*, Geneva, 19 August 1991.

<sup>17</sup> Cf. doc. A/CONF.151/PC/WG III/L.32 as revised.

## (b) The Rio Conference

As was to be expected (see above) the Rio Conference “dedicated only marginal attention to the problem of the impact of warfare on the environment”.<sup>18</sup>

However this subject came up on several occasions during the *general discussions*.<sup>19</sup> Several speakers pointed to the seriousness of damage to the environment in time of conflict and stressed “the inherent danger to the environment associated with armed conflict”.<sup>20</sup> Here, too, few delegations opted for developing the law, with most of them calling for greater compliance with it.<sup>21</sup>

The most important discussions took place within the *Contact Group on Legal Instruments*, whose task was to examine the articles in Chapter 39 of Agenda 21 on which views diverged.

After difficult negotiations, a modified version of paragraph 39.6 (a) (see above) was finally adopted by consensus.

The following text was then submitted to Plenary: “Measures in accordance with international law should be considered to address, in times of armed conflict, large-scale destruction of the environment that cannot be justified under international law. The General Assembly and its Sixth Committee are the appropriate forums to deal with this subject. The specific competence and role of the International Committee of the Red Cross should be taken into account”.

At the *closing sessions* of the Conference, Principle 24 of the draft Rio Declaration<sup>22</sup> and paragraph 39.6 (a) as amended by the Contact Group<sup>23</sup> were adopted without modification; they mark the progress achieved in the Rio Conference’s work to protect the environment in time of armed conflict.

These two articles make no appreciable change in the existing law; they do however testify to a heightened awareness of the risks which

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<sup>18</sup> Cf. Lamazières, G.: “The impact of warfare on the environment and related themes at the United Nations Conference on Environment and Development” in *UNIDIR Newsletter* No. 18, July 1992, p. 15.

<sup>19</sup> Cf. in particular the statement by the Secretary-General of the Conference, from which the quotation at the beginning of this article is taken, and those of the Swedish, Iranian, Hungarian, Saudi Arabian, Swiss and ICRC delegations.

<sup>20</sup> Cf. statement by the representative of Saudi Arabia.

<sup>21</sup> For instance Switzerland: “(...) certainly a large body of written and customary rules exists (...). However all too often these rules are misunderstood, misapplied or interpreted in different ways. States (...) have the obligation to respect them and ensure that they are respected under all circumstances.”

<sup>22</sup> Cf. doc. A/Conf.151/5/Rev.1.

<sup>23</sup> Cf. doc. A/Conf.151/L.3/Add.39.

warfare entails for the environment. Moreover, the second article has the advantage of defining the framework in which this work will have to be continued.

### **III. Second Review Conference of the Parties to the ENMOD Convention (Geneva, 14-18 September 1992)**

On 10 December 1976 the United Nations General Assembly adopted the ENMOD Convention. Its purpose is to prohibit the 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).

Within the meaning of Article II, the types of damage to the environment prohibited by the Convention are those which result from “any technique for changing — through the deliberate manipulation of natural processes — the dynamics, composition or structure of the Earth”.<sup>24</sup>

Article VIII of the Convention makes provision for a periodic review of the operation of the Convention. An initial Review Conference was accordingly organized in Geneva in September 1984.<sup>25</sup>

The damage to the environment during the 1990-1991 conflict revived controversy about some aspects of the ENMOD Convention. In this connection, it will be recalled that the main objection raised by some specialists to this treaty was that it regulated only the use of future techniques (unrealistic in the opinion of some) and dismissed from its field of application environmental damage caused by “conventional” methods of warfare.

Some States requested a Second Review Conference to be convened precisely to remedy these shortcomings and update the

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<sup>24</sup> For a more in-depth analysis of the origins and contents of the ENMOD Convention cf. Goldblat, J.: “The Environmental Convention of 1977: an analysis” in A. Westings, ed: *Environmental Warfare*, SIPRI/Taylor and Francis, London 1984, Chapter 5, pp. 53-64; moreover, *UNIDIR Newsletter* No. 18, July 1992 includes several articles on this treaty.

<sup>25</sup> A summary of the work of the First Review Conference appears in doc. ENMOD/CONF.II/2 of 3 August 1992: “Summary of negotiations leading to the conclusion of the Convention (:::) and of subsequent developments related to the Convention.

Convention. After a Preparatory Committee<sup>26</sup> had met, the Conference was convened in Geneva from 14 to 18 September 1992.

**(a) Participation in the Second Review Conference**

Forty States party attended the Conference. In addition, ten non-party States and six specialized organizations, including the ICRC, were granted observer status.

**(b) Participants' proposals**

As it is not possible to include here all the proposals submitted to the Conference, only the most important ones are outlined below.

1. Many delegations raised the question of the Convention's applicability to environmental damage of the type caused during the Gulf war in 1990-1991. Most of the speakers admitted that, from a strictly legal point of view (irrespective of the fact that several of the warring parties were not party to the treaty), the Convention was not applicable since the very rigid criteria laid down in it did not apply to the damage which occurred. This state of affairs was deemed unacceptable by some delegations who wanted the scope of the Convention enlarged.
2. To that end, several delegations proposed that the definition of prohibited damage be specified and expanded; that the threshold of applicability (in particular, the criteria as to *widespread, long-lasting or severe effects*) be lowered and that all serious damage to the environment (and not only that caused by high-tech weapons) be henceforth prohibited by the Convention.
3. Most of the delegations felt that the Convention needed to be adapted to the realities of contemporary conflicts and that the new Convention should include rules on chemical weapons.
4. Several delegations expressed the hope that *research* into environmental modification techniques should henceforth be prohibited.
5. Most of the delegations also thought that the use of *herbicides* should be more closely regulated.
6. Numerous proposals were also made as to implementation of the Convention; thus it was proposed to set up inquiry and monitoring mechanisms and to establish a committee of experts.

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<sup>26</sup> Cf. ENMOD/CONF.II/1 of 10 April 1992: *Report of the Preparatory Committee of the Second Review Conference.*

7. Several delegations also insisted on the importance of prevention by making the Convention's rules as widely known as possible.
8. Several proposals were also made in connection with sanctions, including one that a link be established between violations of the Convention and the concept of international crime.<sup>27</sup>
9. There was unanimous regret that to date so few States (only 55) had agreed to be bound by the Convention.

**(c) Results of the Conference**<sup>28</sup>

Although consensus<sup>29</sup> was not reached on many substantive proposals, the Conference did however clarify some aspects of the Convention and widen its sphere of application to some extent. Amongst the most encouraging results can be cited:

1. The interpretation given to Article I, according to which "all research and development on environmental modification techniques as well as their use should be dedicated solely to peaceful ends".<sup>30</sup>
2. The reaffirmation of the interpretation whereby — under certain conditions — the use of *herbicides* could be equated with environmental modification techniques prohibited under Article II of the Convention.<sup>31</sup>
3. The establishment of a group of experts to clarify the scope and application of the Convention.<sup>32</sup> This group, whose composition is defined in Article V, para. 2, will have to take into account the work done by the Sixth Committee of the General Assembly and by the ICRC.

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<sup>27</sup> For an analysis of this concept, cf. *Report of the International Commission on the work of its forty-third session*, doc. A/46/10, New York, 1991, pp. 300-302.

<sup>28</sup> Cf. doc. ENMOD/CONF.II/11 of 17 September 1992: *Final Document of the Second Review Conference*, Part II, pp. 9-14.

<sup>29</sup> Cf. Doc. ENMOD/CONF. II/11, Annex IV of 17 September 1992: "Proposals and ideas presented at the Conference which did not enjoy consensus for inclusion in the Final Declaration".

<sup>30</sup> Cf. *Final Document*, p. 11.

<sup>31</sup> *Ibid.*

<sup>32</sup> *Ibid.*, p. 13.

#### (d) Assessment

Despite certain welcome developments, the ENMOD Convention still has its weak points, in particular its extremely high threshold of application and the fact that it continues to limit the use of weapons which at times smack of science fiction, but remains helpless in the face of very real threats.

One cannot but agree with the opinion expressed by certain delegations to the effect that the Conference “has demonstrated that all is not well with the ENMOD Convention” and those who deemed that it was necessary “to bring ENMOD into contemporary relevance”.<sup>33</sup>

### IV. 47th Session of the United Nations General Assembly (autumn 1992)

On 9 December 1991 the 46th Session of the General Assembly concluded its examination of agenda item 140<sup>34</sup> and adopted Decision 46/417. This stated that the General Assembly took note that the protection of the environment would be addressed at the 26th International Conference of the Red Cross and the Red Crescent and requested “the Secretary-General to report to the General Assembly at its Forty-seventh Session on activities undertaken in the framework of the International Red Cross with regard to that issue”.

Pursuant to that request, the Secretary-General asked the ICRC to keep him informed of the progress it was making. In reply, the ICRC submitted a detailed report to the 47th Session of the General Assembly.<sup>35</sup>

The report begins by outlining the legal instruments currently in force and then summarizes the work done in recent years to protect the environment in time of conflict. Special stress is placed on the work carried out under the aegis of the ICRC. (See Chapter I above.)

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<sup>33</sup> Statement by Ms. Peggy Mason, head of the Canadian delegation, at the final session on 13 September (pp. 1 and 3). Similar opinions were expressed at the Sixth Committee of the General Assembly by the representatives of Argentina, Austria and Sweden. Cf. Press Release, GA/J/7 of 1 October 1992, Information Department, Information Service, New York.

<sup>34</sup> “Exploitation of the environment as a weapon in times of armed conflict and the taking of practical measures to prevent such exploitation”. For a summary of the discussions at the Forty-Sixth Session cf. *Report on the work of the meeting organized by the ICRC* (cf. footnote 12), pp. 14-16.

<sup>35</sup> Cf. Doc. A/47/328 of 31 July 1992, “Protection of the environment in times of armed conflict”, Report of the Secretary-General.

From 1 to 6 October 1992, the Sixth Committee (dealing with legal matters) of the General Assembly examined this agenda item. Invited to report to the Committee, the ICRC described the work which it or other organizations had already carried out in this area.

With regard to the law's applicability, the ICRC expressed its conviction that "the true problem does not really lie in the inadequacy of the norms, but in ignorance of or disregard for them"<sup>36</sup> and therefore emphasized the need to find ways of improving dissemination and implementation of the rules of international humanitarian law. In that connection, it welcomed the suggestion by some experts that rules governing the protection of the environment should be included in the *military manuals* of each country.

While stressing the importance and relevance of the existing law, the ICRC did however acknowledge that certain points still required clarification: for instance, customary law and the law applicable in situations of non-international armed conflict needed further analysis.

The ICRC declared its willingness to continue its studies and produce a definitive report in 1993. It announced that a second meeting of experts would be convened to this effect in January 1993, with somewhat expanded composition in order to ensure that the work would reflect even more broadly the concerns of the world at large.

The ICRC was commended for its work and its views were largely shared by the delegations.<sup>37</sup>

While some delegations declared themselves in favour of attempting new codification,<sup>38</sup> the majority of speakers pointed to the importance of the applicable law and underscored the need to improve its dissemination, implementation and compliance with it.

The views expressed during the meeting of experts organized by the ICRC (see Chapter I above) and during the Second Review Conference of the ENMOD Convention (see Chapter III above) were thus fully confirmed during the discussions.<sup>39</sup>

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<sup>36</sup> Cf. "Protection of the environment in armed conflicts", statement by the ICRC to the 47th Session of the General Assembly on 1 October 1992.

<sup>37</sup> Cf., in particular, the summary of the statements by the representatives of Jordan, Canada, Argentina, Austria and the United Kingdom (on behalf of the EEC), in *Press Release GA/J/7* of 1 October 1992, Information Department, Information Service, New York.

<sup>38</sup> Cf. in particular the statement by Argentina on 1 October 1992, *ibid.*

<sup>39</sup> Since various drafts of the resolution are still being negotiated while this article is being written, it is not possible to state precisely what follow-up the General Assembly intends to give to the discussions. From the information available at the moment it would seem that the tendency is towards a resolution inviting States *to accede* to the instruments in force and *to disseminate* as widely as possible (particularly

## Conclusion

To end this account of some recent studies on the protection of the environment in time of armed conflict, the following conclusions will be drawn.

By their very number — and the seriousness with which they have been conducted — these studies appear to show that today the international community has fully realized the enormous damage which war can inflict on the environment.

The destructive potential of modern methods of warfare is rendering the need for measures to safeguard the environment more and more evident.

While this new general awareness is to be welcomed, in itself it is not enough. It must now be followed up by practical measures. In this respect — despite certain constructive proposals which will require very close examination — the results of the recent studies are undeniably still inadequate.

Generally speaking, they have led to the conclusion that the existing law, if properly implemented and respected, provided adequate protection. This interpretation still has to be refined and means must be sought of averting damage to the environment, terminating it and punishing those responsible for it.

As indicated above, some such means and mechanisms already exist, whilst others have yet to be found.

In my opinion, emphasis should henceforth be placed on seeking new mechanisms and putting the existing means into effect.

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by having them included in military handbooks). In addition, the ICRC will probably be encouraged to continue its work and to present a report to the 48th session of the General Assembly.