

because of the potential of space science and technology for use in environmental modification either for peaceful or hostile uses. The dual-purpose nature of these technologies is explicitly referred to in the Preamble of the Convention which recognizes that the use of such techniques for peaceful purposes could "contribute to the preservation and improvement of the environment for the benefit of present and future generations", while their military or any other hostile application "could have effects extremely harmful to human welfare".

The key provision of the Convention is contained in Article I (1) which prohibits "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". Environmental modification techniques are defined as those which can be used "for changing - through the deliberate manipulations of natural processes - the dynamics, composition or structure of the Earth, including its biota, lithosphere, hydrosphere, and atmosphere, or of outer space" (Article II, emphasis added). The Convention, therefore, has direct application to outer space.

The Convention does not establish a ban on all environmental modification technologies for military or hostile purposes, but only for those which have widespread, long-lasting or severe effects. No definition of these terms may be found in the Convention itself. However, the understandings which accompany the Convention and form part of its negotiating record, define "widespread" as encompassing an area of several hundred square kilometers; "long-lasting" as lasting for a period of months or approximately a season; and "severe" as involving significant disruption or harm to human life, natural and economic resources or other assets.<sup>46</sup> These broad and legally non-binding provisions do not alter the largely recognized consequence that whatever is not prohibited verbis expressis by the Convention is implicitly permitted.<sup>47</sup> Thus, non-hostile techniques are not prohibited, regardless of their effects, nor are techniques which produce destructive effects below a certain threshold.<sup>48</sup>

Another characteristic of the Convention derives from the dual-purpose character of environmental modification technologies. The Convention states that its provisions "shall not hinder the use of environmental modification techniques for peaceful purposes" (Article