The BWC has been subject to two review conferences aimed at ensuring its effectiveness, in 1980 and 1986. Among the concerns addressed at both review conferences were the ability of the Convention to cover potential weapons developments made possible by new technologies, such as recombinant deoxyribonucleic acid (DNA); the absence of provisions restricting research on biological and toxic agents, together with the possible weapons applications of such research; and problems of verifying compliance with the Convention.

Such issues were highlighted by a stream of allegations beginning in the mid-1970s concerning the development and use of biological and toxic weapons by the superpowers and their allies. Particularly noteworthy were charges that the Soviet Union and its allies had used toxin weapons in Southeast Asia (i.e. yellow rain), and the inability to establish the facts conclusively.

In an attempt to strengthen the BWC further, the final declaration of the Second Review Conference included a new arrangement allowing any state to call a meeting of an advisory group of experts if a problem arises concerning application of the Convention. It also requires signatories to begin work on measures to prevent or reduce any "ambiguities, doubts and suspicions concerning bacteriological activities and to improve international cooperation on the peaceful uses of microbiology." Specific measures included an exchange of information concerning research facilities, biological products and the occurrence of rare diseases. In order to elaborate precise procedures for such exchanges, an ad hoc group of scientific and technical experts from the states parties met in Geneva from 31 March to 15 April 1987. The 1986 Review Conference had also requested that states send information to the UN Department of Disarmament Affairs. On 30 October 1987, both the United States and the Soviet Union filed reports including information on their research