

IISL COLLOQUIUM ON THE LAW OF OUTER SPACE (E7)
Remediation of Space Debris: A Fundamental Legal Challenge? (7)

Author: Ms. Mizuki Tani Hatakenaka
Japan Aerospace Exploration Agency (JAXA), Japan

APPLICABILITY OF PRECAUTIONARY PRINCIPLE AND PRECAUTIONARY APPROACH
RELATING TO SPACE DEBRIS REMEDIATION

Abstract

Regarding international environmental problems on the ground, it is often impossible to prove that particular damage has been caused by one particular State. Not only ex-post facto relief but advance prevention is also necessary if serious or irreversible damage can occur. For these reasons, the precautionary principle has been drawing attention on the ground. Such background will be also common to space debris remediation, which needs safety requirement to prevent from generating secondary debris by collision with targeted debris, the owner of which can be unknown.

However, the precautionary principle has never been directly applied in dispute settlements due to its nature. The Rio Declaration provides that if the causal link between cause and damage is not fully proved by scientific evidence, such uncertainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation. It means that the burden of proof will be transferred from regulatory side to developer in the principle. Since regulations will be concretized along with the development of scientific knowledge, the principle is difficult to become customary law. Therefore, while adoption of the precautionary principle is progressing in the EU, States such as the U.S. and Japan accept not the principle in national legislation but the non-legally binding precautionary approach in some political documents.

Looking at Antarctic Treaty System and the deep seabed mining, the regulations based on the precautionary principle are progressing, while Article III, IX and XII of the Outer Space Treaty (OST) and most soft law relating to outer space remain silent. Some previous research addresses the applicability of the principle to outer space, and there is an opinion that the principle applied to the Straddling Fish Stocks Agreement will be an example for space environment. However, fish can be renewable unlike space environment. In addition, few articles compare with Antarctic regime and the deep seabed mining in detail. The legal status of outer space is different from these fields, especially the deep seabed, i.e. the common heritage of mankind. However, a comparison can be still helpful because Article IX OST has common meaning with Article 1 of the Moon Agreement in terms of environmental issues.

To balance between environment and freedom of use of outer space, this paper examines the applicability of the precautionary principle and the non-legally binding precautionary approach relating to the space debris remediation comparing with Antarctic Treaty System and the deep seabed mining.