

# Utilization and curation of frozen core samples in IODP and implementation of the Nagoya Protocol in ocean drilling science

\*Nan XIAO<sup>1</sup>

1. Japan Agency for Marine Earth Science and Technology

Deep biosphere research has become one of the major scientific focuses in ocean drilling science. How to access to core samples with sufficient quality has been a changes for scientists. Currently there are two methods of accessing to deep biosphere samples which are participating in drilling expeditions and requesting samples from core repositories. The Kochi Core Center has curated deep biosphere samples that were processed aseptically and stored at deep frozen (-80 degree C) condition from more than 10 drilling expeditions. Increased scientific attention to microbiological research of the subseafloor environment raises the complications and concerns related to adherence to the Nagoya Protocol of the Convention on Biological Diversity (CBD). The Nagoya Protocol is an international agreement that aims to guide countries in developing standart protocols and protections for accessing biological materials, and sharing benefits derived from their utilization. Since its commencement, the Nagoya Protocol has placed international biological research, especially fieldwork, under greater political scrutiny and increased its complexity due to the variation in implementation between nations. We present the central points of the Nagoya Protocol on access and benefit-sharing (ABS) and discuss their relationship to ocean drilling research. In addition, we address the challenges faced by ocean drilling in complying with this internation convention.

Keywords: ocean drilling program, frozen core sample, Nagoya Protocol, convention on biological diversity