NIES ABS Committee

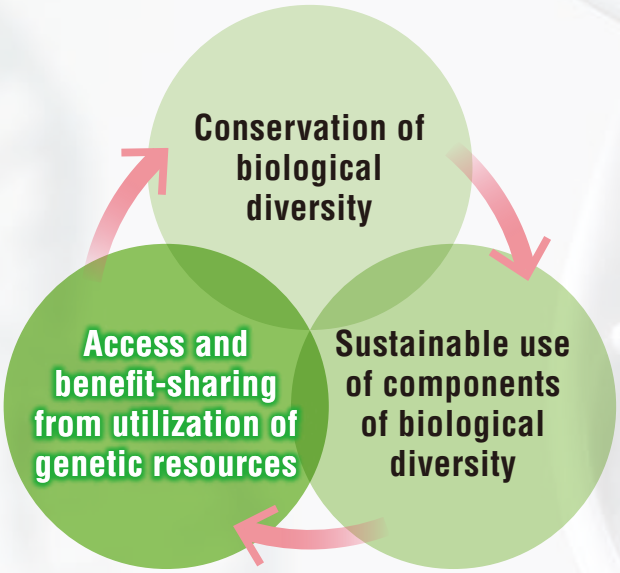
ABS Management

at the National Institute for Environmental Studies (NIES)

Who owns biological resources?

ABS: Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization

What is ABS?



Three main objectives of the CBD*1

*1: CBD, the Convention on Biological Diversity, is an international treaty adopted by the Earth Summit, which became effective in 1993 and is currently affiliated with 196 member states.

Access and benefit-sharing (ABS) is one of the objectives of the Convention on Biological Diversity, and it encourages compliance with the legislation of the provider country and agreement for benefit-sharing when accessing (e.g. acquiring, utilising, or exporting) genetic resources. Such an ABS procedure is required for both academic and commercial use of genetic resources as well as traditional knowledge associated with genetic resources.

ABS management at NIES

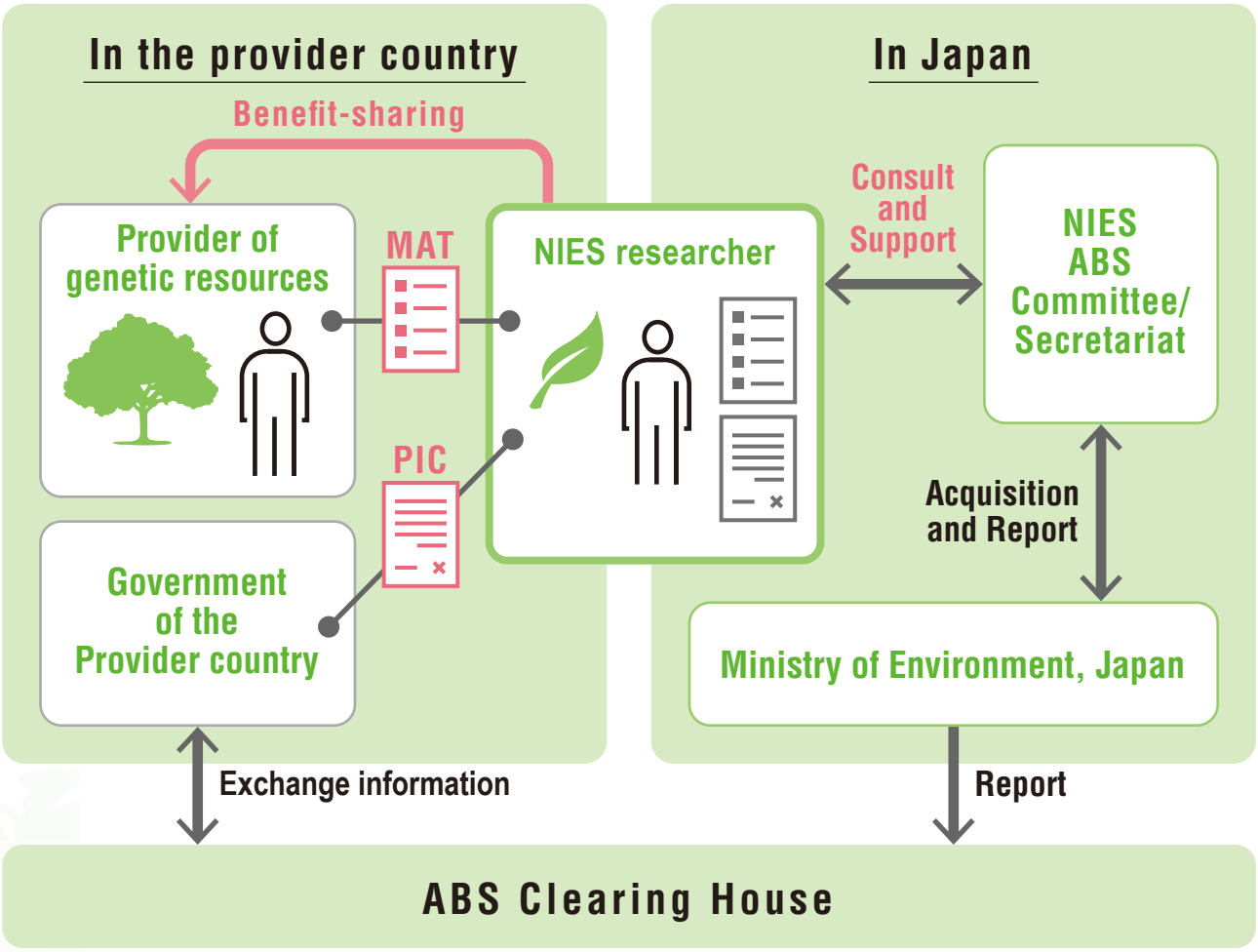
NIES conducts scientific research using genetic resources originating from other countries. To promote relationships with those countries and counterparts, NIES established its ABS policies*2 and declared compliance with the CBD, Nagoya Protocol*3, and Japan's ABS guidelines.
These are set out in the NIES ABS Guidelines*2.

The NIES's ABS management also covers the utilisation of genetic resources from countries without ABS legislation and from *ex situ* collections. These are set out in the NIES ABS Guidelines.

*2: Link to "Basic Policy on Access to Genetic Resources and Benefit-sharing at the National Institute for Environmental Studies"

*3: Nagoya Protocol: Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization to the Convention on Biological Diversity

ABS procedures



MAT: Mutually Agreed Terms PIC: Prior Informed Consent

When NIES staff access genetic resources originating from other countries, the ABS committee at NIES supports ABS compliance in terms of the legislation of the provider country (i.e. PIC), terms and conditions of utilisation (i.e. MAT), the Japanese ABS Guidelines, and the NIES's ABS Policy and Guidelines. Because ABS regulations are complex and differ across country, NIES staff are encouraged to consult the ABS secretariat in the following cases:

Please contact us

- Before conducting field research and collecting materials in other countries.
- Before receiving biological samples from other countries.
- Before providing biological samples originating from other countries that are preserved at NIES.
- Before inviting a guest researcher who will bring biological samples originating from other countries.
- If it is unclear whether the biological sample requires ABS.

Conservation of biological diversity in *ex situ* situations
and ABS compliance by NIES

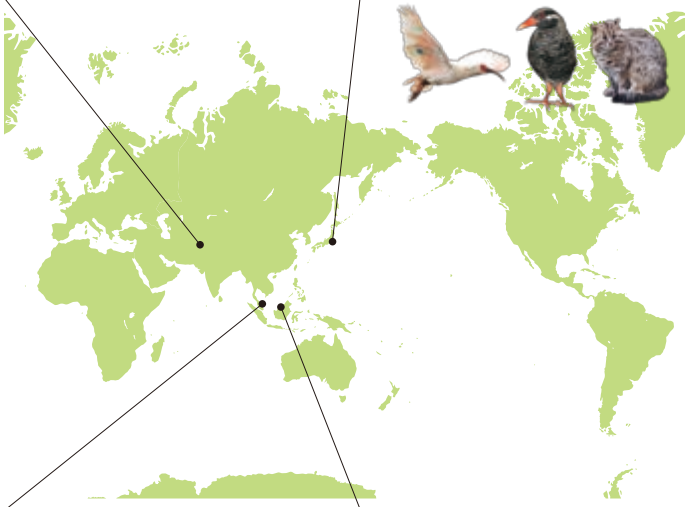
Genetic resource banking for endangered species


NIES collects organs, somatic cells, germ cells, and DNA, etc. from dead bodies or captive specimens of endangered species for long-term cryopreservation. The characteristics of the physiological functions and genetic information of endangered species can be preserved for the future by this activity. Cryopreserved samples can be used for endangered species conservation through extinction risk analysis, evaluating susceptibility to pathogens, and understanding reproductive characteristics. NIES is also working with related organisations in Asia to promote genetic resource cryopreservation in the region.

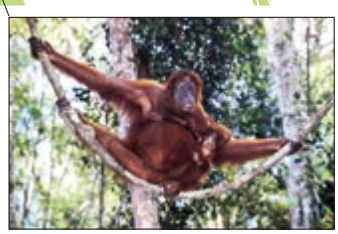
Government of Nepal, Ministry of Forests and Environment, Department of National Parks and Wildlife Conservation
Nepal Academy of Science and Technology

National Institute for Environmental Studies, Japan







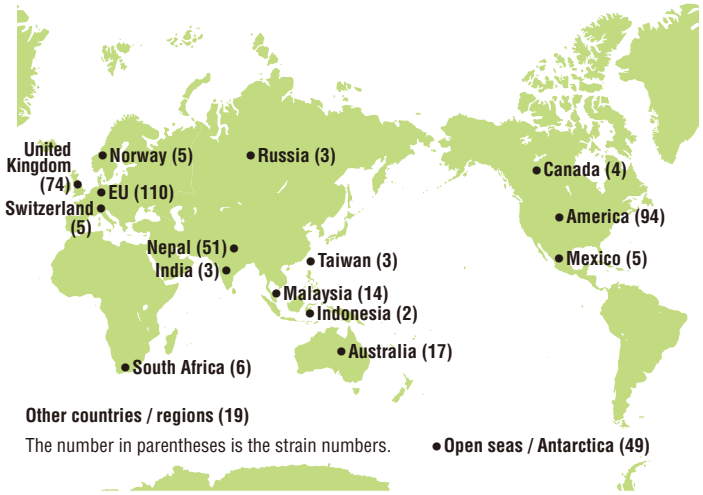


Wildlife Reserves Singapore, Singapore Zoo

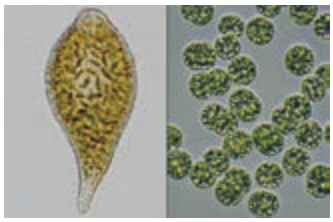
Sarawak Forestry Corporation

Microbial Culture Collection

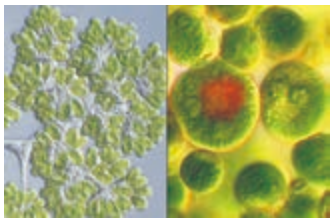

The Microbial Culture Collection at NIES (MCC-NIES), the largest algal collection in Japan, preserves algal strains comprising various taxonomic groups and provides them for environmental research, basic research, and educational purposes. In addition to algal strains obtained from Japan, the MCC-NIES preserves and provides strains from the open seas, Antarctica, and 39 countries around the world. When accepting deposits of algal strains obtained overseas, the MCC-NIES acts in compliance with ABS.



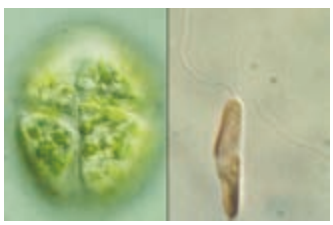
Non-Japanese origins of algal strains preserved at the MCC-NIES



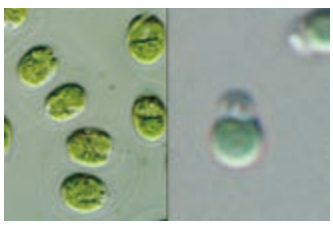
Strains causing Aoko (cyanobacterial bloom) and red tide



Strains for biomass production and useful materials



Taxonomically important strains



Model organisms for various research purposes

National Institute for Environmental Studies, Japan

NIES ABS Committee

16-2 Onogawa, Tsukuba-City, Ibaraki, 305-8506 Japan
TEL +81-29-850-2435 FAX +81-29-850-2587

nies abs policies