

Standing on the edge: ABS/NP considerations for a regional reference laboratory

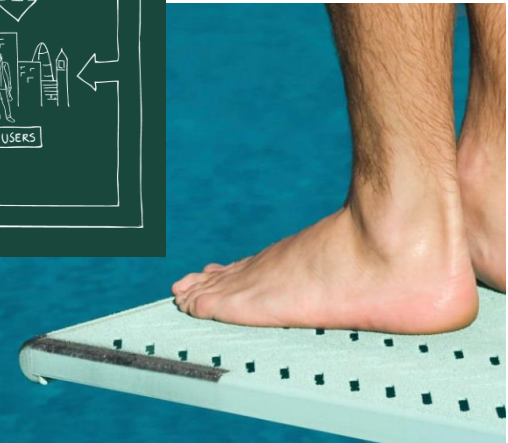
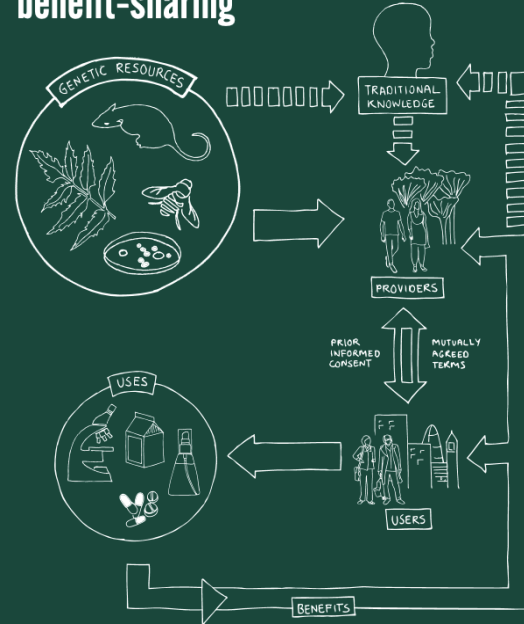
Dr. Scarlett Sett

CSIRO - Australian Centre for Disease
Preparedness

Asia Pacific Quadripartite Webinar Series 2:
Nagoya Protocol from One Health Perspective
December 6th, 2024

Convention on Biological Diversity: ABS

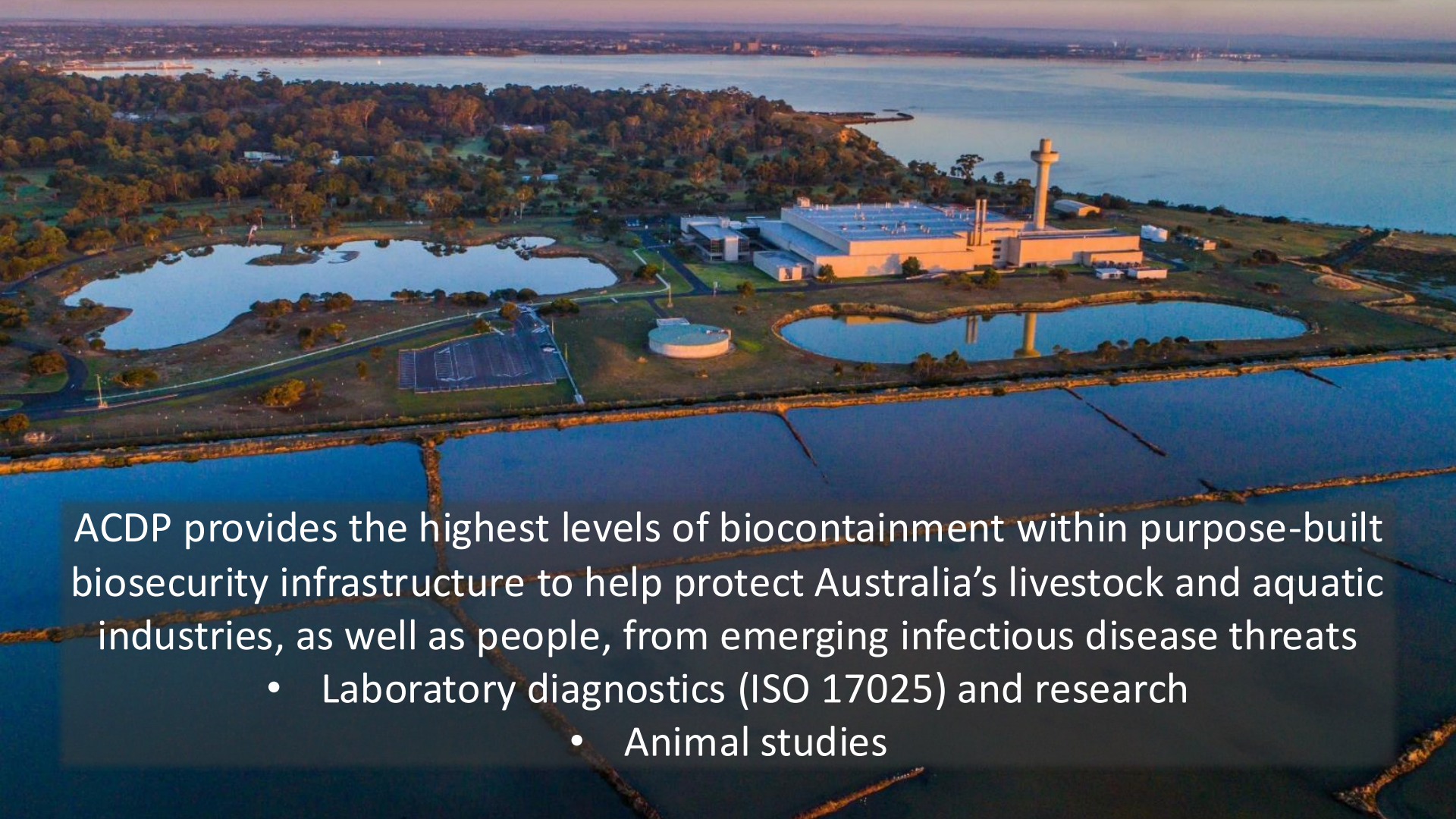
Introduction to access and benefit-sharing





Australia's National Science Agency

Who are we and what do we do?



ACDP provides the highest levels of biocontainment within purpose-built biosecurity infrastructure to help protect Australia's livestock and aquatic industries, as well as people, from emerging infectious disease threats

- Laboratory diagnostics (ISO 17025) and research
 - Animal studies



ACDP's Reference Laboratory Role

ACDP helps protect Australia's multi-billion agriculture industries, and the nation, from emerging infectious and emergency animal disease threats.

WOAH

WOAH Collaborating Centres

- Laboratory Capacity Building
- New and Emerging Diseases
- Diagnostic Test Validation Science in the Asia-Pacific Region

WOAH Reference Laboratory

- Bluetongue
- Hendra and Nipah virus diseases
- Highly pathogenic & low pathogenic avian influenza
- Newcastle disease
- African swine fever
- Classical swine fever
- Abalone herpesvirus
- Ranavirus
- Yellow head disease
- Epizootic haematopoietic necrosis virus



National Reference Laboratory

Terrestrial animals

- 27 diseases of multiple species
- 2 cattle diseases
- 5 sheep & goat diseases
- 11 equine diseases
- 16 swine diseases
- 10 avian diseases
- 4 diseases of other species

Aquatic species

- 24 fish diseases
- 13 mollusc diseases
- 15 crustacean diseases
- 3 amphibian diseases

Innocuity testing

UN/FAO

- FAO Reference Centre for Animal Influenza & Newcastle Disease
- FAO Reference Centre for Biorisk Management
- UNSGM Designated Laboratory for Biological Weapons

WHO

- Representation on WHO SARS-CoV-2 Expert Group
- Global Outbreak & Response Network (GOARN) partner



ACDP Reference Laboratory services

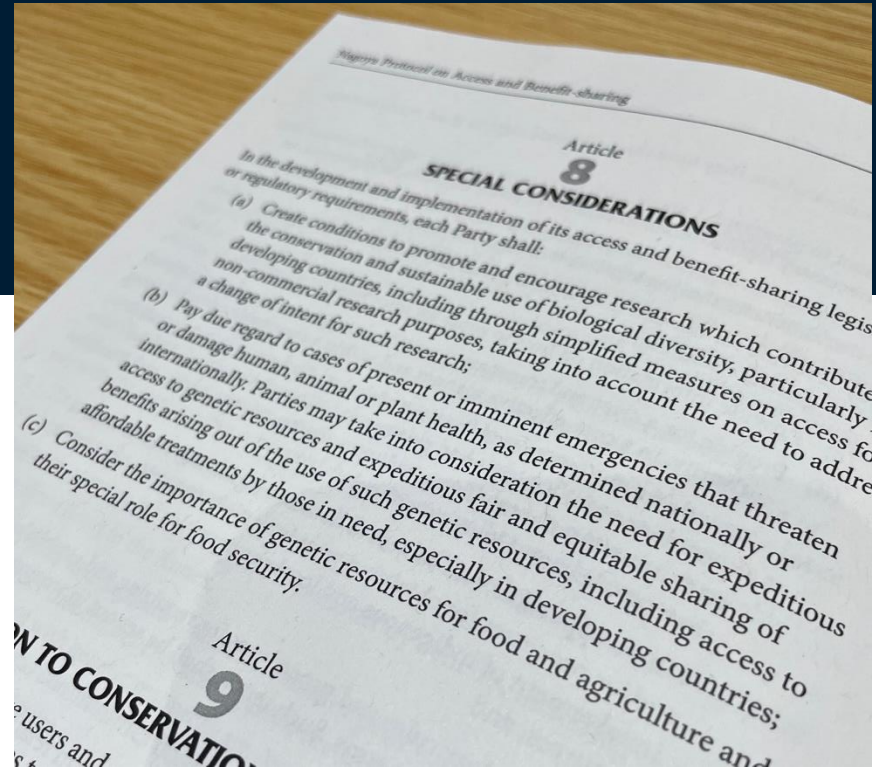
- Primary and confirmatory lab diagnostics and characterisation of viruses (ISO 17025)
- Technical advice, eg diagnostics, surveillance, sample collection
- Training
 - Laboratory and field diagnostics
 - Biosafety and biorisk management
 - Quality Assurance
- Supply quality assured reagents and reference materials
- Provider of Proficiency Testing (ISO 17043)
- Disease surveillance – national programs and overseas
- Research – in Australia and in collaborating country



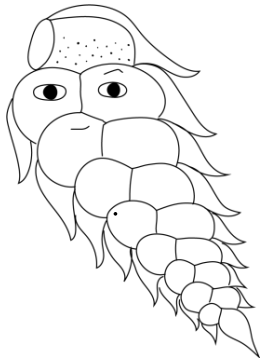


Why should we have ABS/NP considerations for our reference lab activities?

- Reference lab services **might** not fall under the scope of the NP
 - Article 8(b) – special consideration
 - Activities might not fit the “utilization”



What is covered under the NP?



<i>MATERIAL SCOPE</i>	<i>UTILIZATION SCOPE</i>
<p>„genetic material of actual or potential value“</p> <p>“any material of plant, animal, microbial or other (non human) origin containing functional units of heredity i.e. genes.”</p> <p>Biological material that contains DNA/RNA (dead or alive)*</p>	<p>..“to conduct research and/or development on the genetic and/or biochemical composition of the genetic resource, including through the application of biotechnology.“</p> <p>R&D on derivatives (proteins and enzymes, secondary metabolites)</p>

*excludes: human DNA ≠ **human pathogens & microbiome**, any material covered by another framework would be out of scope of the NP (for example: material under the Pandemic Influenza Preparedness framework)



Relevance to WOAH ref labs....

- Reference lab services **might** not fall under the scope of the NP
 - Article 8(b) – special consideration
 - Activities might not fit the “utilization” definition
- If material is only to for identification **might** be out of scope, however, if material is to be used for research purposes **might** require ABS permits
- National reference labs ≠ NP CNA nor NFP



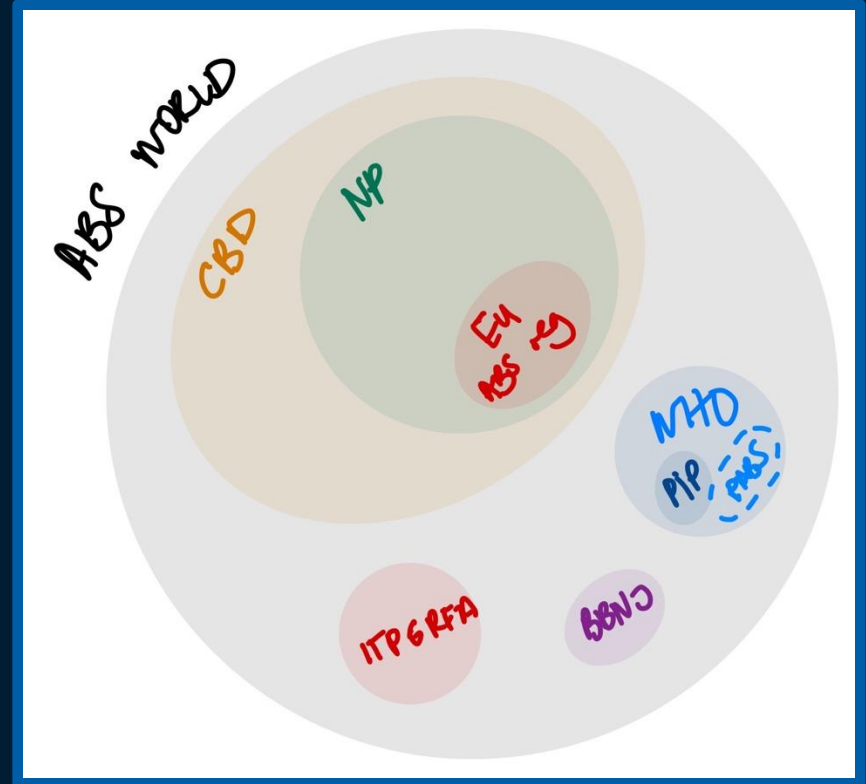


Challenges AND opportunities



Challenges

- ABS is complex and goes beyond the NP





National implementation is key *but also a challenge*

- Differences in interpretation
 - access \neq collection
 - Limited GR under scope of national legislation
 - exemptions
- Each country can decide **IF** and **HOW** they regulate their resources
 - Party with ABS measures
 - Party without ABS measures
 - Non-Party with ABS
 - Non-Party without ABS





Challenges

System is not perfect but it is **established law!** - legal consequences if found non-compliant

SHARE



A new centipede beguiled taxonomists—but the specimens had murky origins. © MAGNOLIA PRESS; C. DOMÉNECH ET AL., ZOO/TAXA, 4483(3), 401 (2018); REPRODUCED WITH PERMISSION

Illicit centipede raises thorny question: Should journals have refused to publish a paper about it?

By Yao-Hua Law | Feb. 10, 2021, 12:20 PM

SHARE



A spectacular spider is new to science. CHIEN LEE

This amazing blue tarantula is a new spider species—but did researchers break the law when they studied it?

By Yao-Hua Law | Feb. 27, 2019, 12:00 PM

Indonesia gets tough on foreign scientists

Strict new rules and prison sentences for biopiracy could stifle international research.

DYNA ROCHMYANINGSIH

SCIENCE • 26 Jul 2019 • Vol 365, Issue 6417

114

SCIENCEINSIDER ASIA/PACIFIC

Indonesia bans five foreign scientists, shelves conservation data

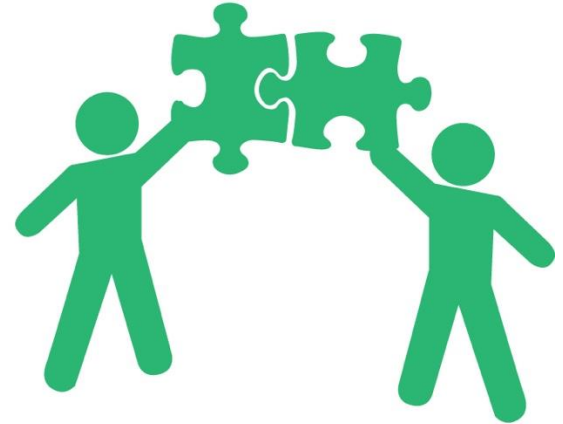
Researchers say the government tightly controls—and sometimes disputes—population estimates for endangered species

7 OCT 2022 • 2:45 PM • BY DYNA ROCHMYANINGSIH



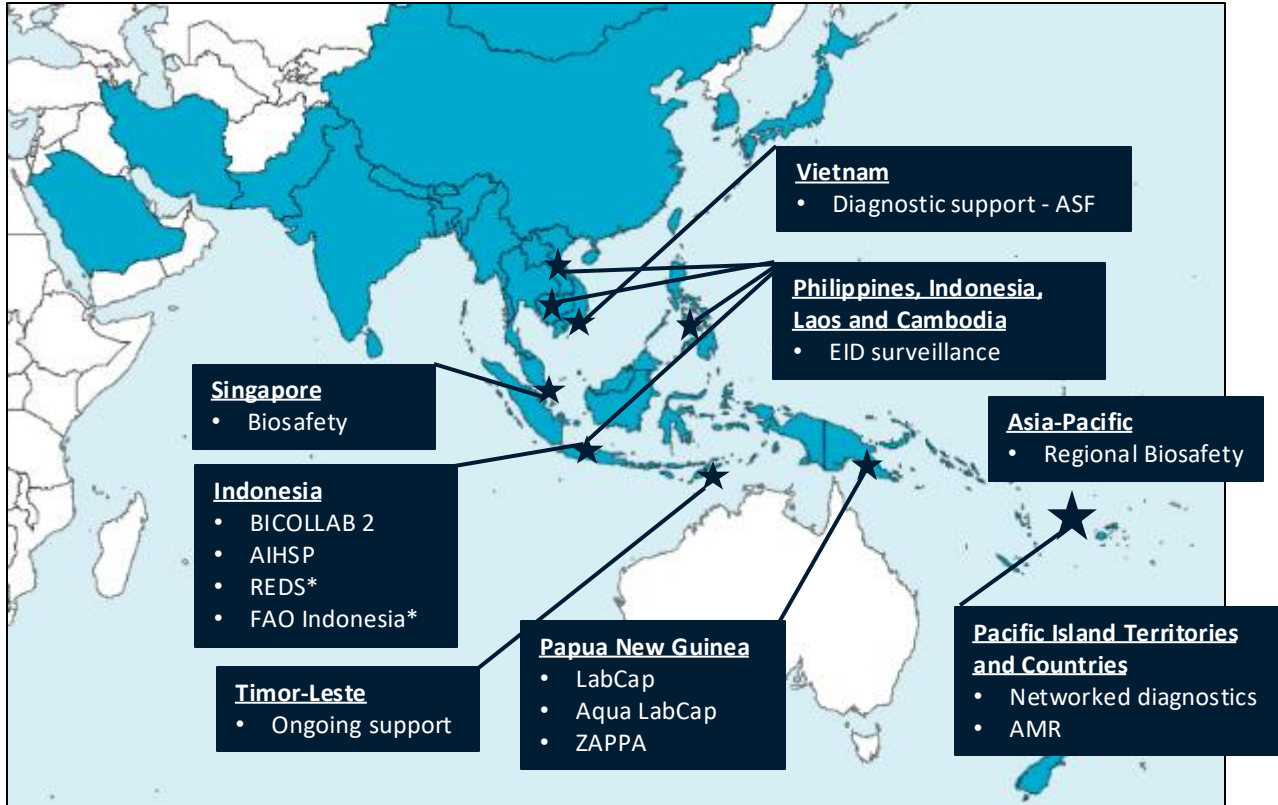
Opportunities

- Principles, values and objectives of frameworks are upheld by compliance
- **Opportunities** for scientific collaboration and to increase benefit-sharing
 - Non-monetary benefits often overlooked
 - Capacity building
 - WOAH reference lab diagnostic testing (for free)





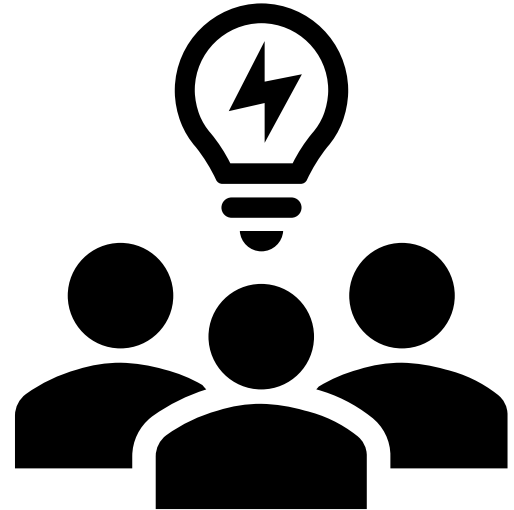
International Program: 2024

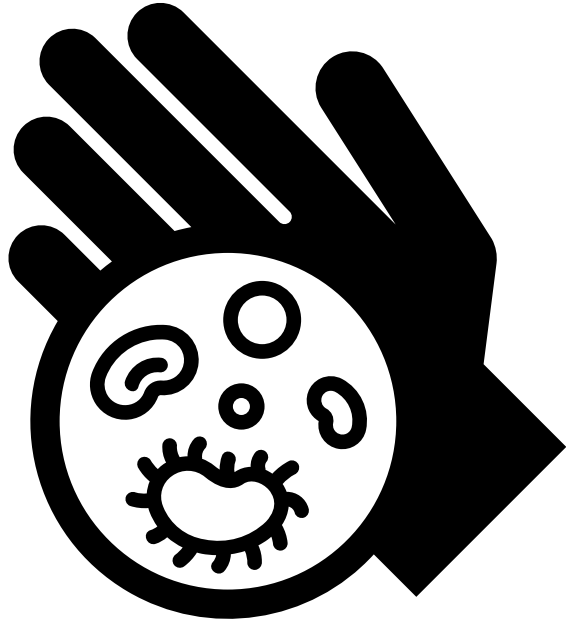




Opportunities

- Policy makers and practitioners need to communicate and engage with each other
 - Established relationships in the region need to connect with the correct authorities





Thank you for your
attention!

Comments, questions,
concerns?

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Useful resources and links

- 🔗 ABS clearing house website (www.absch.cbd.int)
- 🔗 ABS kit (<https://www.cbd.int/abs/information-kit-en>), for printing material, created by the secretariat for awareness raising on specific topics
- 🔗 German Nagoya Protocol HuB (www.nagoyaprotocol-hub.de), project for awareness raising on ABS for the academic sector in Germany
- 🔗 Dutch Nagoya toolkit website (<https://www.absfocalpoint.nl/en/absfocalpoint/Help-tool.htm>)
- 🔗 An introduction to ABS (1 hr presentation) - <https://youtu.be/LYGsyXbku1Y?si=EGiGF8VqUON0fVcz>
- 🔗 Digital Sequence Information and the CBD (1 hr presentation) - <https://youtu.be/hgwGQXk8SM0?si=Qo3LgAzBSCZVOQ9R>



Abbreviations

CBD = Convention on Biological Diversity

ABS = Access and Benefit Sharing

GR = genetic resources

BS = benefit sharing

IRCC = Internationally Recognized Certificate of Compliance

PIC = Prior Informed Consent

MAT = Mutually Agreed Terms

MTA = Material Transfer Agreement

DSI = Digital Sequence Information

ITPGRFA = International Treaty on Plant Genetic Resources for Food and Agriculture

PIP framework = Pandemic Influenza Preparedness

NFP/CNA = National Focal Point / Competent National Authority

What about sequence data?



Digital sequence information (DSI)

Sequences deposited in databases

Use of sequences ≠ use of GR

COP16 outcomes

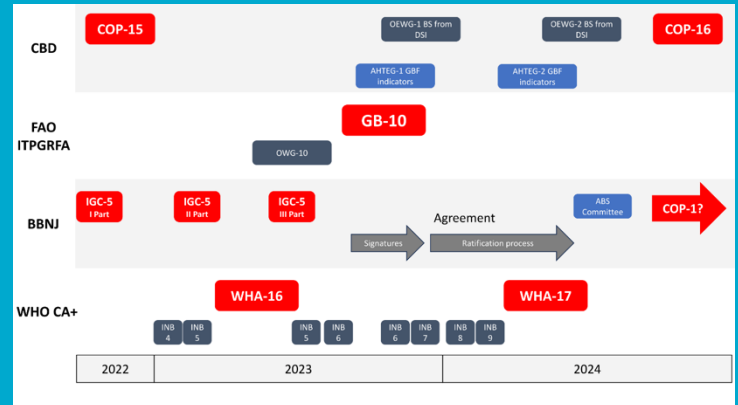
OA remains key

Research does not contribute to the fund

Databases not ABS police

Opportunities for harmonization with other UN fora

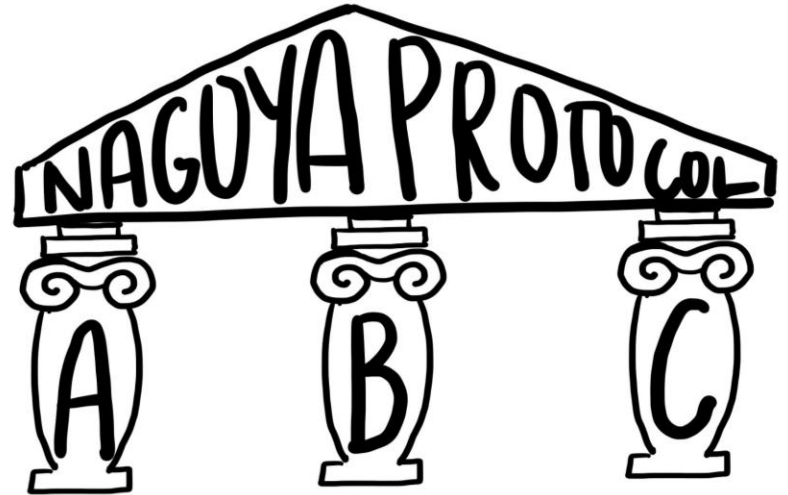
Funding for capacity building missing in text





ABCs of ABS – the pillars of the NP

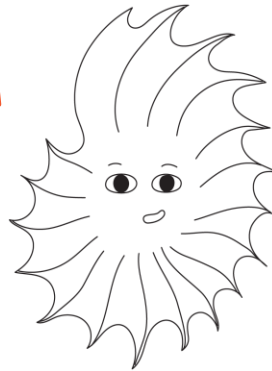
- **A is for access**
 - prior informed consent (PIC) – it means asking for permission first
- **B is for benefit-sharing**
 - it's about giving something back
 - Based on mutually agreed terms (MAT) between the providing country and the user
 - benefit-sharing should contribute to conservation and sustainable use of biodiversity
 - Monetary and non-monetary
- **C is for compliance**



What kind of benefits could I share? Some examples:

Monetary benefits:

- Access fees
- Payment of royalties
- Licence fees in case of commercialization
- Salaries and preferential terms where mutually agreed
 - Joint ventures
- Joint ownership of relevant intellectual property rights.



Non-monetary benefits:

- Sharing of research and development results, including relevant ones to conservation and sustainable use
- Education and training
- Collaboration in scientific research and development programmes
- Research directed towards local priorities, including biodiversity management, health and food security
- Admittance to ex situ collections and to databases
- Institutional capacity-building