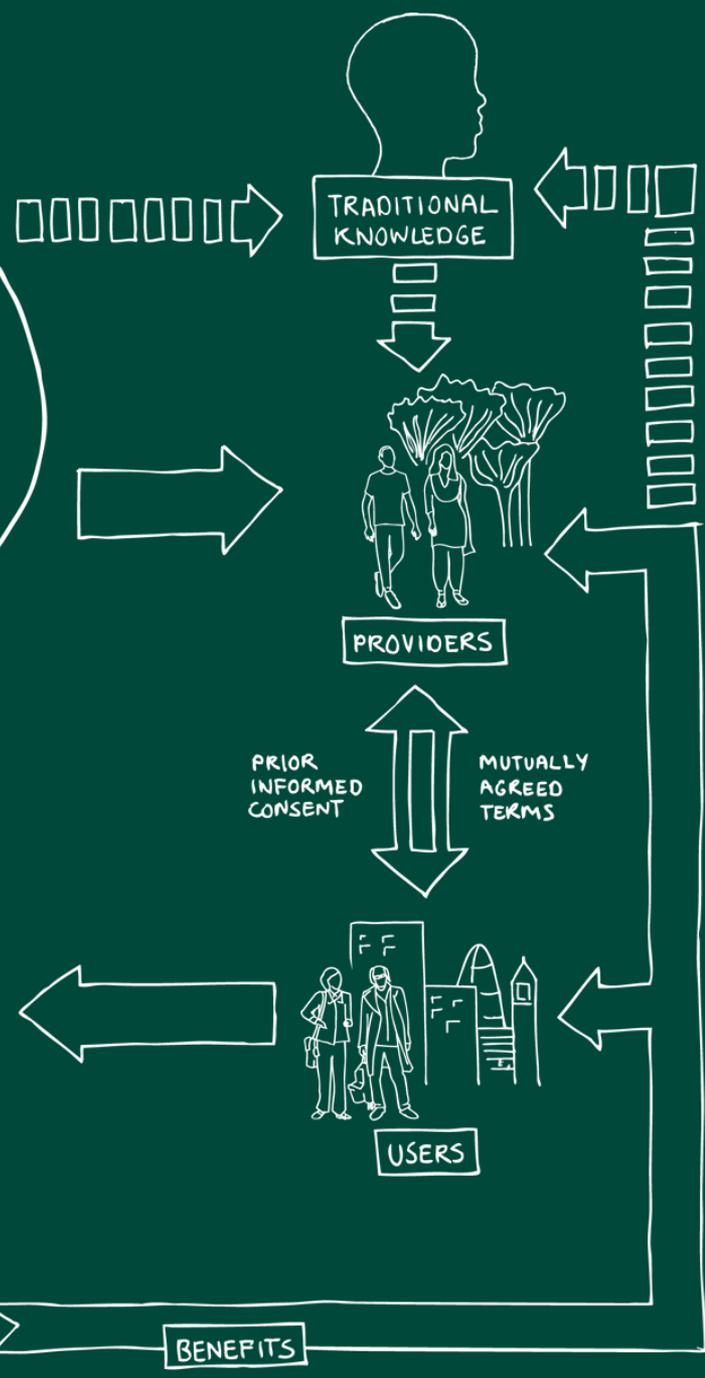
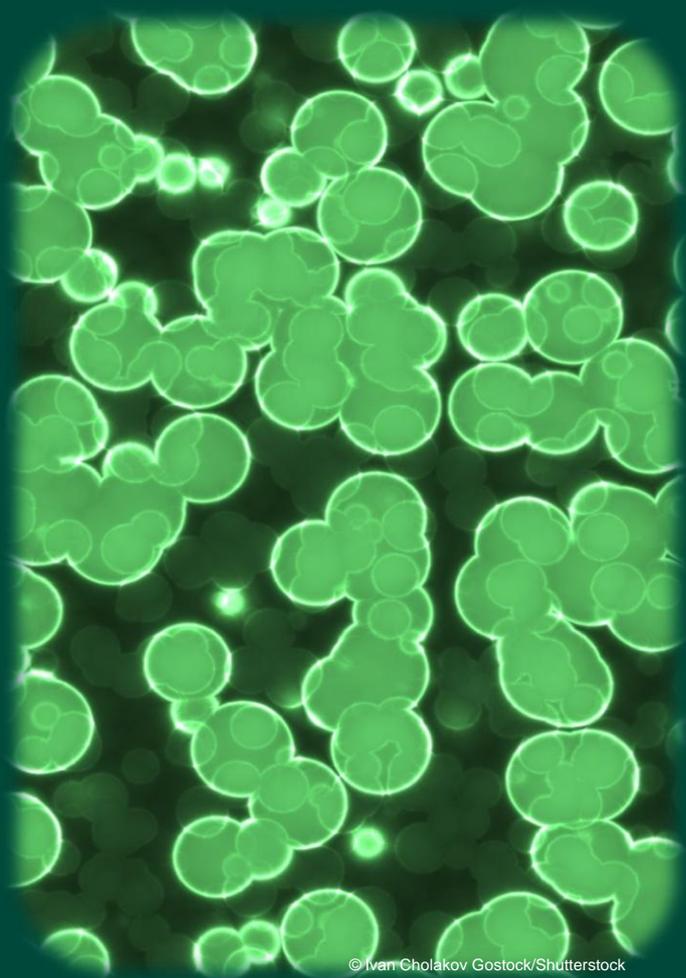


# Access and benefit-sharing information kit



# Introduction on access and benefit-sharing



**An information kit** was developed to build awareness on ABS. The key themes addressed in the information kit are:

- Access and benefit-sharing
- Uses of genetic resources
- Traditional knowledge
- The Bonn Guidelines
- National Implementation
- The Nagoya Protocol on ABS

A brochure, factsheets and PowerPoint slides can be downloaded at:

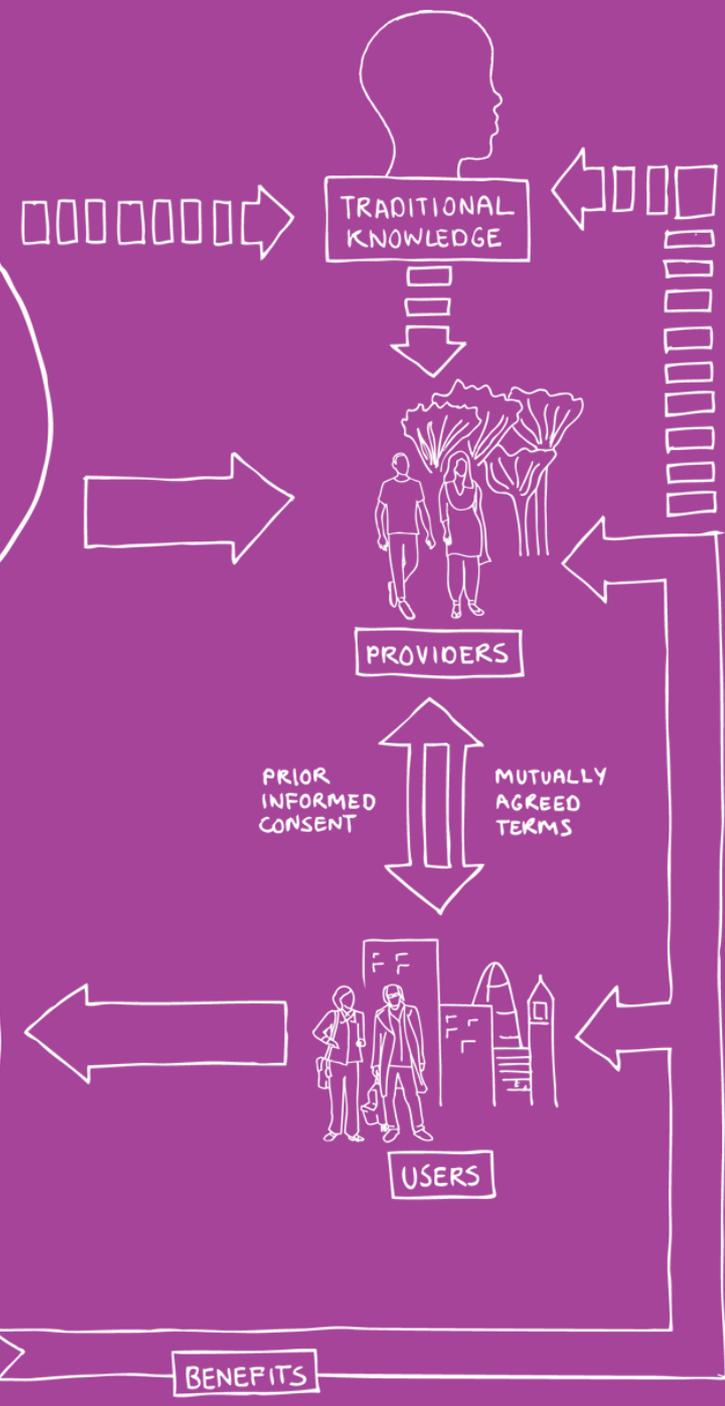
[www.cbd.int/abs](http://www.cbd.int/abs)



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# ← Uses of genetic resources



# Uses of genetic resources

## What does using genetic resources mean?

- It refers to the process of researching the beneficial properties of genetic resources

## Why are genetic resources useful?

- They can lead to the development of new products for human well-being (e.g. pharmaceuticals, cosmetics)
- They allow for a better understanding of the natural world
- They can lead to improvements in biodiversity conservation



# Uses of genetic resources



Genetic resources can be put to **commercial use:**

- Companies develop specialty enzymes, enhanced genes, or small molecules
- They can be used in crop protection, drug development, production of specialized chemicals, or in industrial processing



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# Uses of genetic resources



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Genetic resources can be put to **non-commercial use**:

- Academic and public research institutes use genetic resources to increase our understanding of the natural world through activities such as taxonomy, and ecosystem analysis



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# Uses of genetic resources

## Commercial sector uses:

### Pharmaceutical industry

- Chemical compounds or substances produced by living organisms often provide good leads for the development of new drugs

### Industrial biotechnology

- Enzymes are often used in textile, detergent, food, feed and other industries to improve efficiency and quality of products



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# Uses of genetic resources

## Commercial sector uses:

### Agricultural biotechnology

- Large seed companies often rely on genetic resources to improve performance and farming efficiency for major crops

### Ornamental horticulture industries

- Nurseries, botanical gardens and private collections use genetic resources to produce ornamental plants



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# Uses of genetic resources

## Non-commercial sector uses:

### Taxonomy and conservation

- Genetic resources are crucial for naming and describing species
- Scientific research helps improve environmental conservation



# Uses of genetic resources

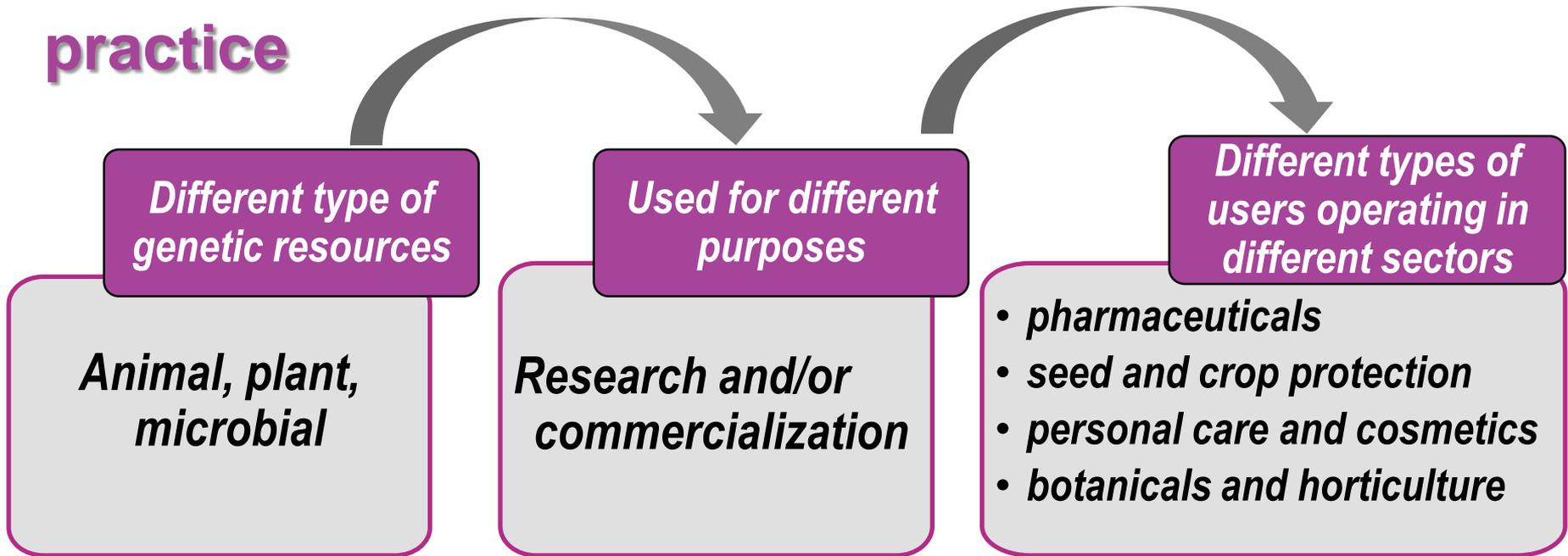
**Distinction** between commercial and non-commercial uses is not always clear-cut

- ABS can be a long chain of providers and users, such as:
  - Indigenous and local communities
  - Research institute in provider country
  - University in user country
  - Private company
- Some genetic resources initially accessed for research purposes can end up being used for commercial purposes



# Uses of genetic resources

## ABS in practice



A large number of actors involved, rarely one provider and one user (e.g. intermediaries)

# Uses of genetic resources

**Prior Informed Consent (PIC)**

**Provider of GR**  
(& associated TK):  
e.g. National  
Competent Authority

**Intermediaries** in either  
provider or user country: e.g.  
research institutes, universities,  
botanical gardens, ex situ  
collections

**User of GR**  
(& associated TK):  
e.g. industry,  
research institutes,  
universities

**Mutually Agreed Terms (MAT)** between provider and user

- Non-commercial or commercial utilization of GR (& associated TK): e.g. basic research, research and development, development of new pharmaceuticals, biotechnological products
- Benefit-Sharing (monetary & non-monetary): e.g. royalties, technology transfer, training

# Uses of genetic resources

## Who needs to understand the uses of genetic resources?

**Providers** - important that they understand the value of genetic resources to:

- Creates incentives for conservation and sustainable use
- Ensure that benefits are shared equitably



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# Uses of genetic resources

## Who needs to understand the uses of genetic resources?

### Users:

- Some research institutions and industries depend on improving their understanding of genetic resources to further their work
- End users include anyone who buys or benefits from the commercialized products, or benefits indirectly from the value that genetic resources can have in improving production, such as increasing agricultural yields and food supplies

